aiwa

DVD STEREO SYSTEM

XR-DV525

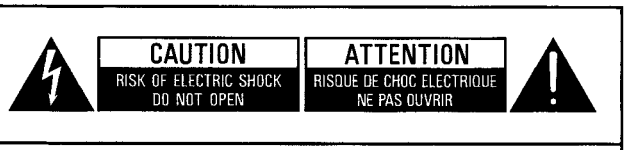
OPERATING INSTRUCTIONS

8A-DJV-905-01
000807AMI-U-9

K

WARNING

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.



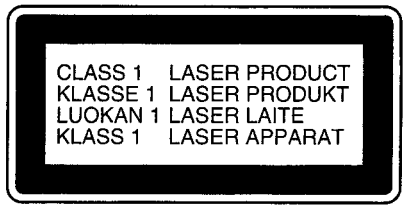
CAUTION

TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

This compact disc player is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT label is located on the exterior.



CAUTION!

Visible and invisible laser radiation when open and inter locks defeated. Avoid exposure to beam.

WARNING

This appliance is supplied with a fitted three pin mains plug. A 5 amp fuse is fitted in the plug.
Should the fuse need to be replaced, use a 5 amp fuse approved by ASTA or BSI to BS1362. When replacing the fuse, you must ensure that any removable fuse covers are correctly refitted.
If you should lose the fuse cover, please contact your nearest AIWA dealer.

DO NOT CUT OFF THE PLUG FROM THIS APPLIANCE. If the plug fitted is not suitable for the power points in your home, or the cable is too short to reach a power point, obtain an appropriate safety approved extension lead or adaptor. If in any doubt please consult a qualified electrician.

If the plug is cut off, remove the fuse and dispose of the plug immediately. **THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO ANY 13 AMP SOCKET.**

If a new plug is to be fitted please ensure it contains a 5 amp fuse, otherwise the circuit should be protected by a 5 amp fuse at the distribution board.

IMPORTANT

The wires in the mains lead are coloured in accordance with the following code:

BLUE — NEUTRAL
BROWN — LIVE

As the colours of the wires in the mains lead of this appliance may not correspond with the colour markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured BLUE must be connected to the terminal which is marked by the letter N or coloured BLACK.

The wire which is coloured BROWN must be connected to the terminal which is marked by the letter L or coloured RED.

DO NOT connect either the BLUE or BROWN wires in the mains lead to the earth terminal (marked with the letter E or by the earth symbol ⏚ or coloured GREEN or GREEN/YELLOW) of a three pin plug.

PRECAUTIONS

Read the Operating Instructions carefully and completely before operating the unit. Be sure to keep the Operating Instructions for future reference. All warnings and cautions in the Operating Instructions and on the unit should be strictly followed, as well as the safety suggestions below.

Installation

1 **Water and moisture** — Do not use this unit near water, such as near a bath, sink, swimming pool, or the like.
2 **Heat** — Do not use this unit near sources of heat, including heating vents, stoves, or other appliances that generate heat. It also should not be placed in temperatures less than 5°C (41°F) or greater than 35°C (95°F).
3 **Mounting surface** — Place the unit on a flat, even surface.
4 **Ventilation** — The unit should be situated with adequate space around it so that proper heat ventilation is assured. Allow 10 cm (4 in.) clearance from the rear and the top of the unit, and 5 cm (2 in.) from each side.
- Do not place the unit on a bed, rug, or similar surface that may block the ventilation openings.
- Do not install the unit in a bookcase, cabinet, or airtight rack where ventilation may be impeded.

5 **Objects and liquid entry** — Take care that objects or liquids do not get inside the unit through the ventilation openings.
6 **Carts and stands** — When placed or mounted on a stand or cart, the unit should be moved with care.
Quick stops, excessive force, and uneven surfaces may cause the unit or cart to overturn or fall.
7 **Condensation** — Moisture may form on the disc pickup lens when:
- The unit is moved from a cold spot to a warm spot
- The heating system has just been turned on
- The unit is used in a very humid room
- The unit is cooled by an air conditioner

When this unit has condensation inside, it may not function normally. Should this occur, leave the unit for a few hours, then try to operate again.
8 **Wall or ceiling mounting** — The unit should not be mounted on a wall or ceiling, unless specified in the Operating Instructions.

Electric Power

1 **Power sources** — Connect this unit only to power sources specified in the Operating Instructions, and as marked on the unit.

2 **AC power cord**
- When disconnecting the AC power cord, pull it out by the AC power plug. Do not pull the cord itself.
- Never handle the AC power plug with wet hands, as this could result in fire or shock.
- Power cords should be firmly secured to avoid being severely bent, pinched, or walked upon. Pay particular attention to the cord from the unit to the power socket.
- Avoid overloading power sockets and extension cords beyond their capacity, as this could result in fire or shock.

3 **When not in use** — Unplug the AC power plug from the AC power socket if the unit will not be used for several months or more. When the cord is plugged in, a small amount of current continues to flow to the unit, even when the power is turned off.

Maintenance

Clean the unit only as recommended in the Operating Instructions.

Damage Requiring Service

Have the units serviced by a qualified service technician if:
- The AC power cord or plug has been damaged
- Foreign objects or liquid have got inside the unit
- The unit has been exposed to rain or water
- The unit does not seem to operate normally
- The unit exhibits a marked change in performance
- The unit has been dropped, or the cabinet has been damaged

DO NOT ATTEMPT TO SERVICE THE UNIT YOURSELF.

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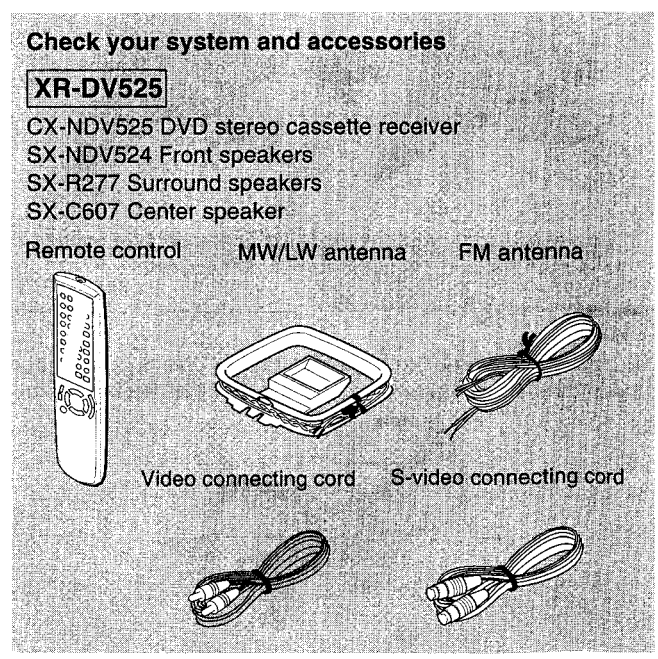
Check your system and accessories

XR-DV525

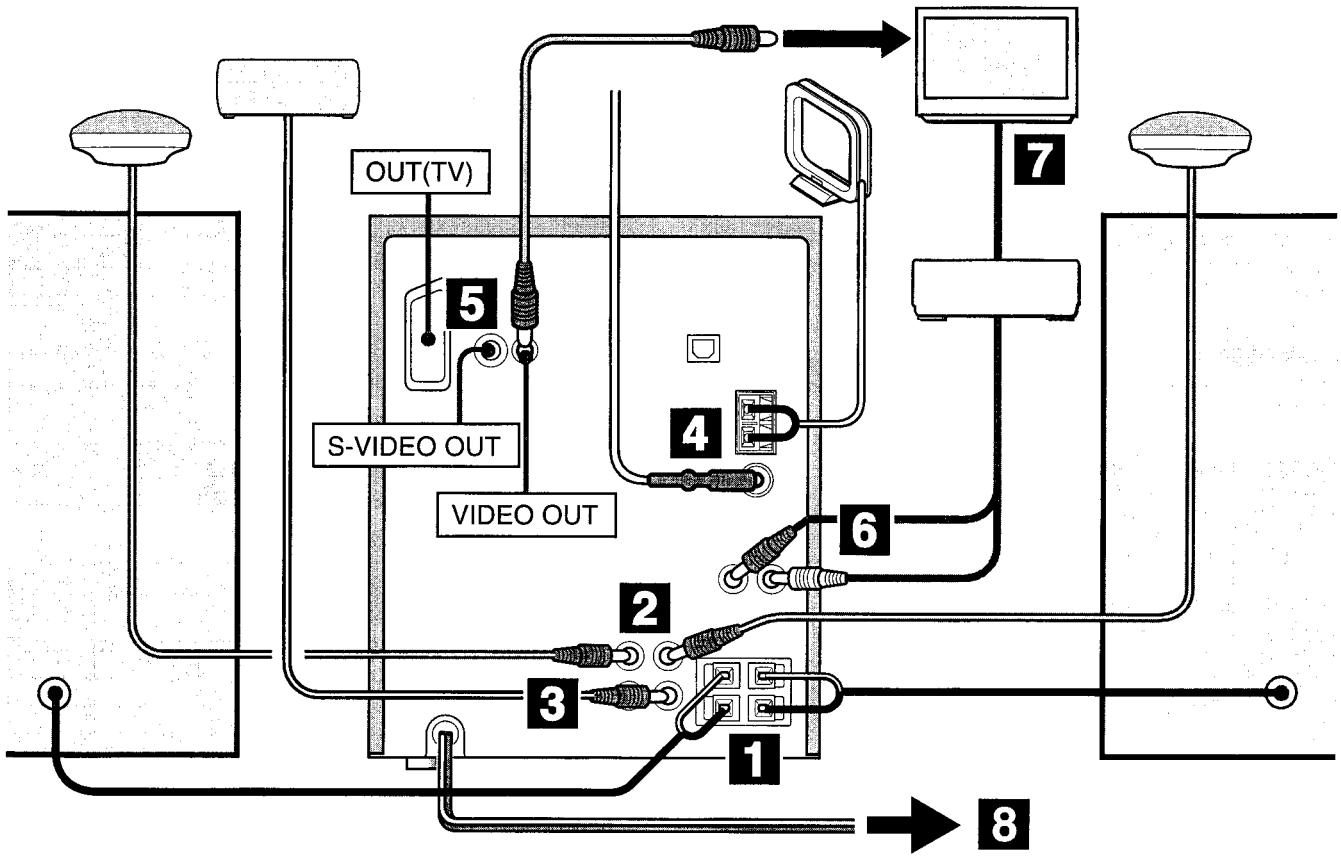
CX-NDV525 DVD stereo cassette receiver
SX-NDV524 Front speakers
SX-R277 Surround speakers
SX-C607 Center speaker



CONNECTIONS

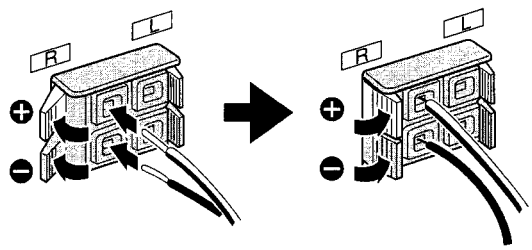
Before connecting the AC cord
The rated voltage of your unit shown on the rear panel is 230 V AC. Check that the rated voltage matches your local voltage.

IMPORTANT
Connect the speakers, antennas, and all optional equipment first. Then connect the AC cord.



1 Connect the right and left speakers to the main unit.

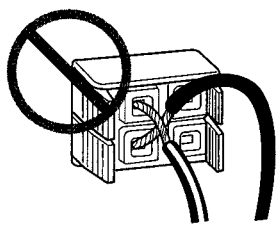
Connect the right speaker cord to **SPEAKERS R** terminals, and left to **SPEAKERS L** terminals.



The speaker cord with the white stripe should be connected to ⊕ terminal and the black cord to ⊖ terminal.

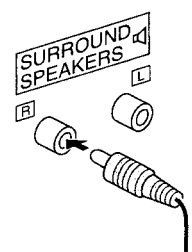
NOTE

Be sure to connect the speaker cords correctly. Improper connections can cause short circuits in **SPEAKERS** terminals.



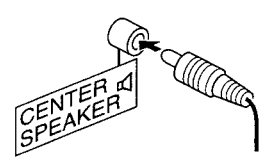
2 Connect the surround speakers.

Connect the surround speaker cords to **SURROUND SPEAKERS** terminals.



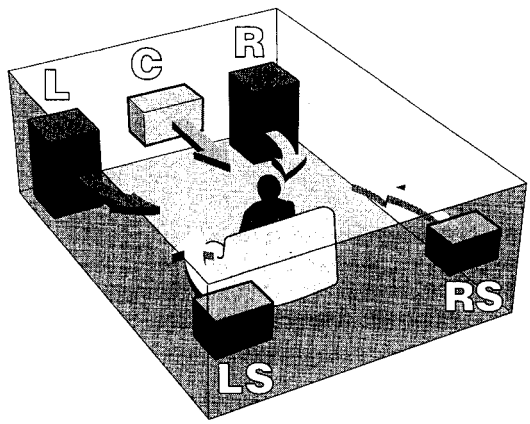
3 Connect the center speaker.

Connect the center speaker cord to **CENTER SPEAKER** terminal.



POSITIONING THE SPEAKERS

To achieve the optimum effects obtainable with the DOLBY SURROUND system, it is important to position the speakers properly. Refer to the following illustration to find out the best location in your room.

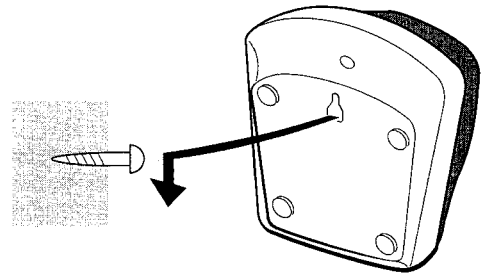


L&R: Front speakers
C: Center speaker
Position in the center of the two front speakers. In addition, position on or below the TV set, if connecting a TV set to the unit.
LS&RS: Surround speakers
Place the surround speakers directly to the side of or slightly behind the listening area. Align them horizontally, about 1 meter (3.2 feet) above ear height.

NOTE

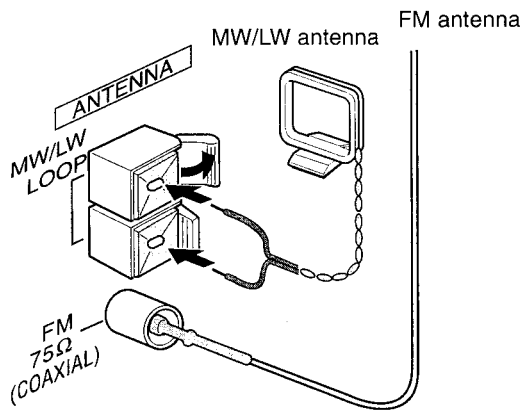
- No sound is heard from the center and surround speakers when the DOLBY SURROUND is set to off.
- The center speaker sounds when the DOLBY SURROUND is set to on.

To mount the surround speakers on the wall
Mount each speaker on a spot that can hold its weight.



4 Connect the supplied antennas.

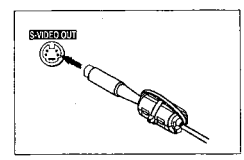
Connect the FM antenna to **FM 75 Ω** terminal and the MW/LW antenna to **MW/LW LOOP** terminals.



To position the antennas
FM antenna:
Extend fully and position for the best possible reception.
This antenna is of an instant type, so the use of an outdoor antenna is recommended.
MW/LW antenna:
Position and rotate this antenna to find the best possible reception.

5 Connect the television set.

If your TV set has an S-video input jack:
Connect the **S-VIDEO OUT** jack of this unit and the S-video input jack of your TV with the supplied S-video connecting cord.
Be sure to plug in the end with the ferrite core to the main unit.



If your TV set does not have an S-video input jack:
Either
Connect the **VIDEO OUT** jack of this unit and the video input jack of your TV with the supplied video connecting cord.
or
Connect the **OUT (TV)** jack of this unit and the SCART input jack of your TV with an optional SCART cord.

Refer also to the Operating Instructions of your TV set.
The illustration shows the connection to the **VIDEO OUT** jack.

- **If your TV set is a wide-screen set:** You need to adjust the TV aspect in the DVD setup menu after all connections are complete (see "TV Aspect", page 46).

NOTE

The **OUT (TV)** jack supports only video output. It does not output audio signals or accept control signals to turn the unit on.

6 Connect the video equipment.

Connect **VIDEO/AUX** jack of this unit to the audio output jack of the video equipment with an optional audio connecting cord.

7 Connect the Television to the video equipment.

Refer to the Operating Instructions of the connected equipment for details.

8 Connect the AC cord to an AC outlet.

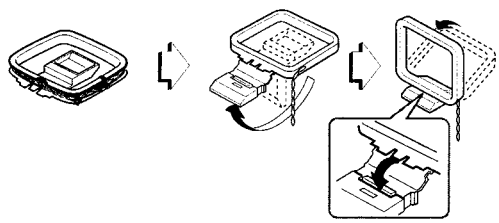
The DEMO will begin when the AC cord is plugged into an AC outlet for the first time. To deactivate the DEMO, set the clock.

NOTE

- Do not leave objects generating magnetism, such as credit cards, near the speakers, as these objects may be damaged.
- Do not bring the FM antenna near metal objects or curtain rails.
- Do not bring the MW/LW antenna near other optional equipment, the stereo system itself, the AC cord or speaker cords, since noise will be picked up.
- Do not unwind the MW/LW antenna wire.

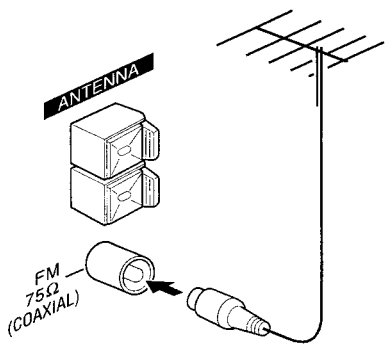
To stand the MW/LW antenna on a surface

Fix the claw to the slot.



CONNECTING AN OUTDOOR ANTENNA

For better FM reception, use of an outdoor antenna is recommended.
Connect the outdoor antenna to **FM 75 Ω** terminals.

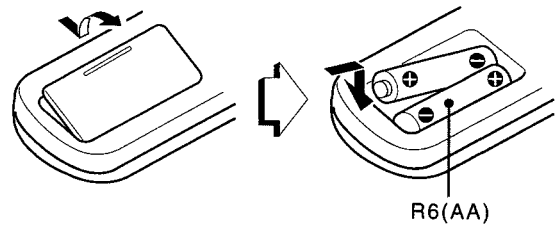


To connect other optional equipment → page 41.

REMOTE CONTROL

Inserting batteries

Detach the battery cover on the rear of the remote control and insert two R6 (size AA) batteries.



When to replace the batteries

The maximum operational distance between the remote control and the sensor on the main unit should be approximately 5 meters (16 feet). When this distance decreases, replace the batteries with new ones.

To use SHIFT on the remote control

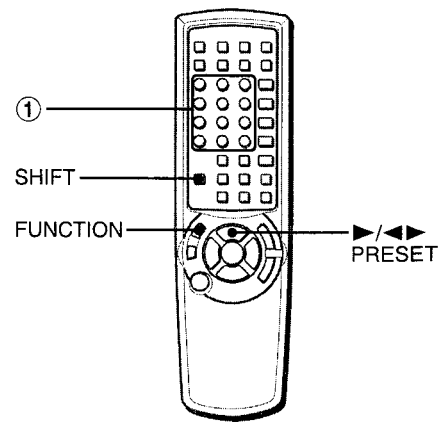
Buttons ① have two different functions. One of these functions is indicated on the button, and the other on the plate above the button.
To use the function on the button, simply press the button.
To use the function on the plate above the button, press the button while pressing **SHIFT**.

To use FUNCTION on the remote control

FUNCTION substitutes for the function buttons (**TAPE DECK 1/2**, **TUNER BAND**, **VIDEO/AUX**, **DVD/CD**) on the main unit.
Each time **FUNCTION** is pressed, the next function is selected cyclically.

►/◄► PRESET on the remote control

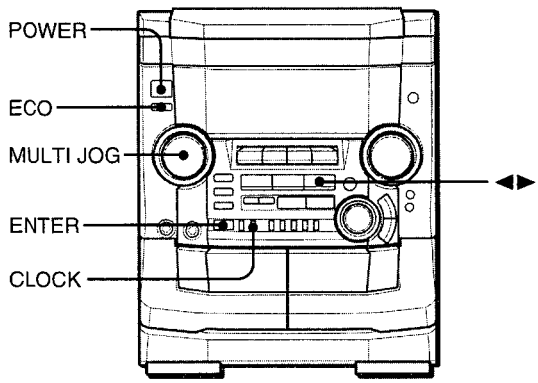
The function is the same as that of ◄► on the main unit.



NOTE

- If the remote control is not going to be used for an extended period of time, remove the batteries to prevent possible electrolyte leakage.
- The remote control may not operate correctly when:
  - The line of sight between the remote control and the remote sensor inside the display window is exposed to intense light, such as direct sunlight
  - Other remote controls are used nearby (those of a television, etc.)

BEFORE OPERATION



To turn the power on
Press one of the function buttons (**TAPE DECK 1/2**, **TUNER BAND**, **VIDEO/AUX**, **DVD/CD**). Playback of the inserted disc or tape begins, or the previously tuned station is received (Direct Play Function).
POWER is also available.

NOTE

When the power is turned on, the disc compartment may open and close to reset the unit.

To turn the power off
Press **POWER**.

DEMO(Demonstration)

When the AC cord is plugged into an AC outlet for the first time after purchase, the DEMO will begin in the display. When the power is turned on, the DEMO will end. When the power is turned off, the DEMO will begin again.
When the clock is set, the DEMO will not begin even if the power is turned off.

To deactivate or activate DEMO
Press **CLOCK**, and clock is displayed in place of the DEMO.
Press ◄► to activate.
(For more about the DEMO, see page 40)

SETTING POWER ECONOMIZING MODE

When you set power economizing mode to "ECO ON" or "ECO AUTO",the unit reduces power consumption by conducting four ECO operations as follows.

ECO ON
- The unit (all the illumination of the display and the buttons) blacks out when the power is turned off. Only the red indicator lights up.
- If DIMMER (1-3) is selected, the illumination of the display and the buttons brighten for 10seconds only when you press a button, or turn **VOLUME** or **MULTI JOG**.
- The display dimmer mode is set to the dimmest, the button illumination lights off, and the volume is set to the minimum (0) when the unit turns on by timer recording.

ECO AUTO
- In addition to the three operations of ECO ON, the unit automatically turns itself off if you do not operate it and the sound source is mute for 10 minutes.

ECO OFF
The power economizing mode does not function.

***1* Press ECO.**
"ECO MODE" will be displayed.

***2* Press ENTER within 4 seconds.**
The current power-economizing mode status will be displayed.

***3* Turn MULTI JOG within 4 seconds to select one of the power-economizing mode.**
Example : When "ECO ON" is selected.

***4* Press ENTER within 4 seconds.**

NOTE

If the clock is not set, the unit does not black out.
Instead, the DEMO will begin when the power is turned off.

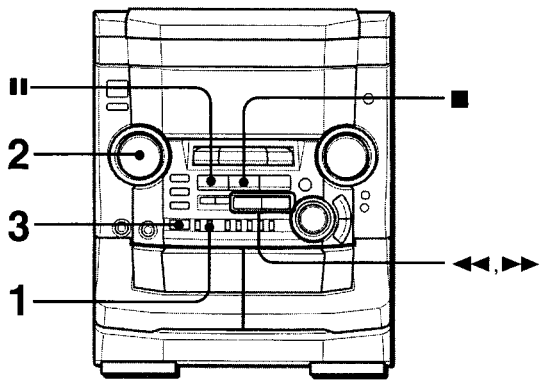
DIMMER MODE

To change the display dimmer mode
1 Press **ECO** repeatedly until "DIM MODE" is displayed.
2 Within 4 seconds, press **ENTER**.
3 Within 4 seconds, turn **MULTI JOG** to select one of the dimmer modes changed cyclically as below.
4 Within 4 seconds, press **ENTER**.

DIM-OFF ⟷ DIMMER 1 ⟷ DIMMER 2 ⟷ DIMMER 3

"DIM-OFF" mode is the brightest and "DIMMER 3" mode is the dimmest. In "DIMMER 3" mode, the spectrum analyzer and the button illumination light off in addition.

SETTING THE CLOCK



1 **Press CLOCK.**
When using the remote control, press **CLOCK** while pressing **SHIFT**.
The clock is displayed. (The ":" between the hours and minutes flashes.)

2 **Within 4 seconds, turn MULTI JOG to designate the hour and the minute.**
Turning **MULTI JOG** changes both the hour and the minute. ◄◄ or ►► is also available in place of **MULTI JOG**. Holding these buttons down will vary the time rapidly.

3 **Press ENTER or II.**
The clock starts from 00 seconds.

To restore an original clock setting
Press **CLOCK** before completing step 3 to restore the previous time setting. This cancels any new setting.

To view the clock when another display is in the display
Press **CLOCK**. The time is displayed for 4 seconds and then the original display reappears. However, the clock cannot be displayed during recording.

To switch to the 24-hour standard
Press **CLOCK** and then press ■ within 4 seconds.
Repeat the same procedure to restore the 12-hour standard.

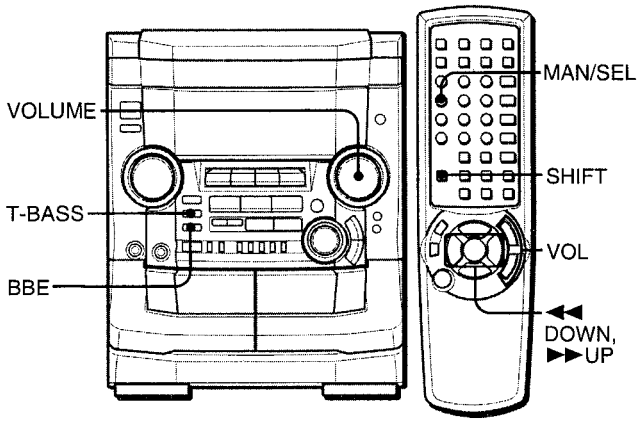
In the 12-hour standard, "AM 12:00" indicates midnight and "PM 12:00" indicates noon.

If the clock display flashes
If the display flashes when the clock is displayed, it indicates that the clock has stopped due to a power failure or the removal of the power cord. The current time needs to be reset.

NOTE

If the power-economizing mode (page 7) is on, the unit blacks out when the power is turned off. To view the clock, press **CLOCK** so that the time is displayed for 4 seconds.

AUDIO ADJUSTMENTS



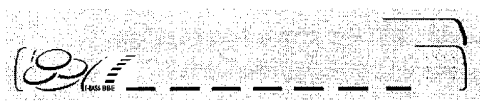
VOLUME

Turn VOLUME on the main unit, or press VOL on the remote control.
The volume level is displayed as a number from 0 to MAX (50). The volume level is automatically set to 20 when the power is turned off with the volume level set to 21 or more.

To change the left/right balance
Press **MAN/SEL** while pressing **SHIFT** on the remote control. L/R is displayed for 2 seconds. Press **◀◀ DOWN** or **▶▶ UP** on the remote control within these 2 seconds.
- The DOLBY SURROUND (page 35) front speakers level is also changed.

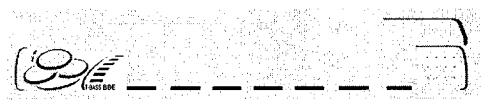
BBE SYSTEM

The BBE system enhances the clarity of high-frequency sound. It also enriches the Karaoke function to make your voice sound clear and pleasant.
Press BBE.
Each time it is pressed, the level changes. Select one of the three levels, or the off position to suit your preference.



SUPER T-BASS SYSTEM

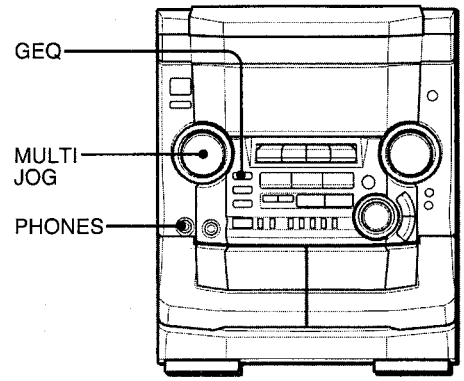
The T-BASS system enhances the realism of low-frequency sound.
Press T-BASS.
Each time it is pressed, the level changes. Select one of the three levels, or the off position to suit your preference.



NOTE

- When playing back a tape recorded with BBE, it is recommended that BBE be set to off to avoid distorted high frequency sound.
- Low frequency sound may be distorted when the T-BASS system is used for a disc or tape in which low frequency sound is originally emphasized. In this case, cancel the T-BASS system.

GRAPHIC EQUALIZER

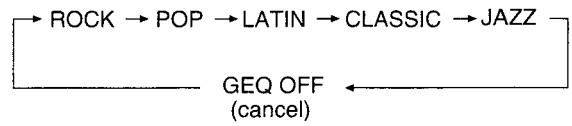


This unit provides the following five different equalization curves.
ROCK: Powerful sound emphasizing treble and bass
POP: More presence in the vocals and midrange
LATIN: Accented higher frequencies for latin music.
CLASSIC: Enriched sound with heavy bass and fine treble.
JAZZ: Accented lower frequencies for jazz-type music

Press GEQ repeatedly, or press GEQ once and turn MULTI JOG within 4 seconds, to select one of the equalization curves.

GRAPHIC EQUALIZER

"GRAPHIC EQUALIZER" appears and the GEQ mode is displayed cyclically as follows.



* The GEQ mode can be displayed in reverse order if **MULTI JOG** is used.

To display the current GEQ mode
Press **GEQ**. The current mode is displayed for 4 seconds.

To cancel the selected mode
Press **GEQ** repeatedly, or press **GEQ** once and turn **MULTI JOG** within 4 seconds, to select "GEQ OFF".
"GRAPHIC EQUALIZER" disappears.

Using the headphones
Connect headphones to the **PHONES** jack with a standard stereo plug (ø6.3 mm, 1/4 inch).
No sound is output from the speakers while the headphones are plugged in.

Sound adjustment during recording
The output volume and tone (except BBE) of the speakers or headphones are freely varied without affecting the recording.

PRESETTING STATIONS

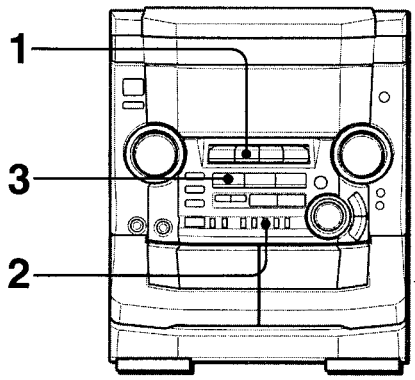
The unit can store a total of 32 preset stations. Presetting allows you to tune in to a station directly. Stations are assigned preset numbers, beginning from 1 in consecutive order for each band (FM, MW, LW).

Automatic presetting:
This unit has a function for reception of *[1]RDS (Radio Data System) and other stations.
FM RDS stations take priority over other FM stations if there are more than 32 receivable stations.

Manual presetting:
You can select stations to be preset from all the bands.

AUTOMATIC PRESETTING

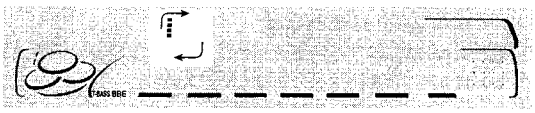
The tuner scans through the receivable frequency range and stores stations automatically.



1 Press TUNER BAND.
FM is displayed.

2 Keep pressing RT for 4 seconds until AUTO PRESET is displayed.
II SET flashes for 4 seconds.

3 Press II SET while II flashes.
The tuner searches for a station, beginning with the FM band. When a tuned station is stored, the selected preset number flashes on the display.



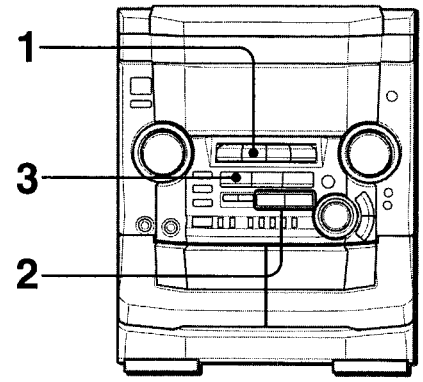
The search continues on the MW and LW bands if preset numbers are still available.
When automatic presetting has been completed, the display returns to the first preset station.

When the tuner detects *[2]identical RDS stations with alternative frequencies
Only the station with the stronger signal is stored.
Before storing an RDS station, the tuner checks first whether the same stations on the other frequencies are present, and stores the station with the best reception.

NOTE

When automatic presetting is done, all previously stored stations are cleared.

MANUAL PRESETTING

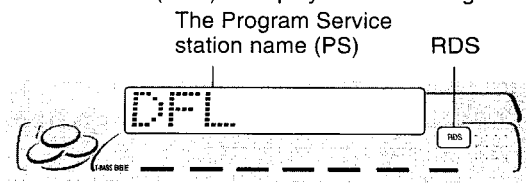


1 Press TUNER BAND repeatedly to select the band.

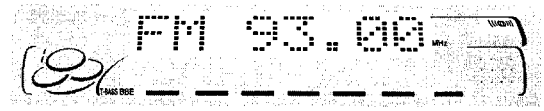
FM → MW → LW

2 Press ◄◄ DOWN or ►► UP to select a station.
Each time the button is pressed, the frequency changes.

ⓐ When tuning in to an FM RDS station
After TUNE on the display goes out, the Program Service station name (*[3]PS) is displayed and RDS lights up.



ⓑ When tuning in to the other stations
After TUNE on the display goes out, the band is displayed.



• During FM stereo reception, ((◎)) lights.

3 Press II SET to store the station.
The selected preset number flashes.

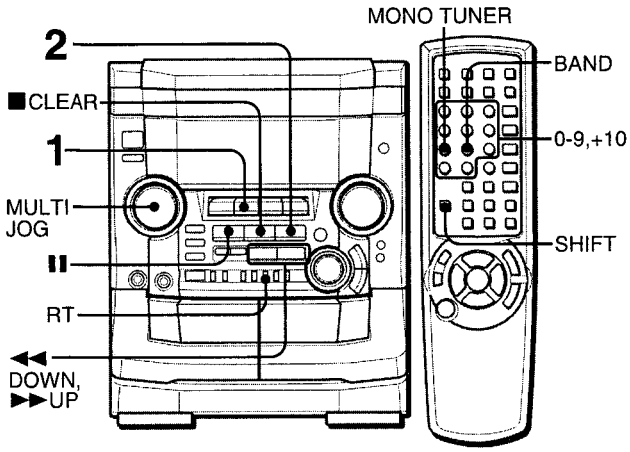
4 Repeat steps 1 to 3 to store the stations.
The next station will not be stored if a total of 32 preset stations for all the bands have already been stored.

To search for a station quickly with ◄◄ DOWN or ►► UP (Auto Search)
Keep one of the buttons pressed until the tuner starts searching for a station. The search stops when the tuner tunes in to a station. To stop the Auto Search manually, press one of the buttons.
• The Auto Search may not stop at stations with very weak signals.

NOTE

"FULL" is displayed if you attempt to store more than 32 preset stations.

RECEPTION BY PRESET NUMBER



1 Press TUNER BAND to select a band.

2 Press ◄► PRESET repeatedly or turn MULTI JOG.

Each time the button is pressed, the next highest number is selected.

Selecting a preset number on the remote control

Press **BAND** while pressing **SHIFT** to select a band. Then, press the numbered buttons to select a preset number.
Example:
To select preset number 20, press **+10**, **+10** and **0**.
To select preset number 15, press **+10** and **5**.

To clear a preset station

Select the preset number of the station to be cleared. Then, press **■ CLEAR**, and press **II SET** within 4 seconds.
The preset numbers of all stations in the band with higher numbers are also decreased by one.

To tune in to a station which is not preset

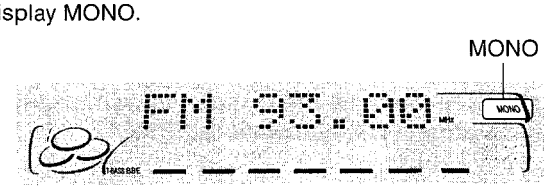
Press **TUNER BAND** to select a band, and press **◄◄ DOWN** or **►► UP** to select the station.

To play a tuned station when the power is off (Direct Play Function)

Press **TUNER BAND**. The power is turned on and the tuned station is played.

When an FM stereo broadcast contains noise

Press **MONO TUNER** while pressing **SHIFT** on the remote control to display MONO.



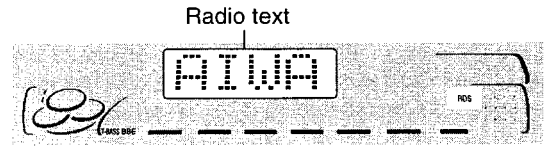
Noise is reduced, although reception is monaural.
To restore stereo reception, repeat the above so that the MONO indicator goes out.

NOTE

RDS functions may not work correctly if the RDS transmission data from the station contains too much interference or the reception signal is too weak.

To display radio text (*4RT) during RDS reception

When the tuned station is transmitting RT codes, text appears on the display when **RT** is pressed.
If the tuned station is not transmitting RT codes, "NO RT" is displayed when **RT** is pressed.



To return to the normal display, press **RT** again.

*1RDS

Today many stations transmit so-called RDS (Radio Data System) codes that contain a variety of additional information along with regular sound signals.

*2Identical RDS stations with alternative frequencies (AF)

This is a list of alternative frequencies that gives information on the various transmitters broadcasting the same program in the same reception area. It enables receivers equipped with memory to store the list, to reduce the time needed for switching to another transmitter.

*3Program service station name (PS)

This is a name consisting of not more than 8 alphanumeric characters, which is displayed in order to inform listeners about the program service being broadcast by the radio station.
Example: BBC 1

Characters which can be displayed

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
0 1 2 3 4 5 6 7 8 9 < > ? " ' * @ – + / = [ ]

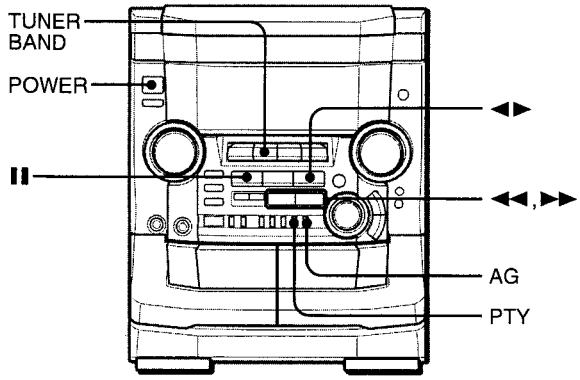
If a character transmitted by the broadcast is not applicable to receivers, a blank space is inserted.

*4Radiotext (RT)

Information such as the cast list of a play or the title of a song is shown on the display.

SEARCHING WITH THE HELP OF RDS CODES

Each RDS station identifies the type of program (*5PTY) which it is currently broadcasting. If you specify a PTY, the unit can automatically detect a suitable station from the preset stations. In addition, the *6EON (Enhanced Other Networks) service works in some areas, so that searching is much faster.



TO DISPLAY THE PTY

Press PTY once during RDS reception.

Programs are classified as follows:

TRAFFIC, NEWS, AFFAIRS (current affairs), INFO (information), SPORT, EDUCATE (education), DRAMA, CULTURE, SCIENCE, VARIED, POP M (pop music), ROCK M (rock music), EASY M (middle of the road music), LIGHT M (light classical), CLASSICS (serious classical), OTHER M (other music), WEATHER, FINANCE, CHILDREN (Children's programmes), SOCIAL (Social Affairs), RELIGION, PHONE IN, TRAVEL, LEISURE, JAZZ (Jazz Music), COUNTRY (Country Music), NATION M (National Music), OLDIES (Oldies Music), FOLK M (Folk Music), DOCUMENT (Documentary), TEST (Alarm Test), ALARM

NOTE

- If program type information is not being transmitted, NO PTY is displayed.
- If undefined program type information is being transmitted, UNDEFINE is displayed.
- The unit identifies TRAFFIC with one of the program types.

TO SEARCH FOR A SPECIFIED PTY

1 **Press PTY.**
The program type of the currently tuned station is displayed.

2 **Within 4 seconds, press ◄◄ DOWN or ►► UP to select a program type.**

3 **Within 4 seconds, press PTY again.**
The search automatically checks every preset station. After identifying a suitable station, the station will be selected.

EON service for the PTY search
When EON service works to transmit PTY, a suitable station is detected without checking every preset station. When a station transmits EON information, it takes about 15 to 30 seconds for the unit to decode the EON information. After decoding the information, EON lights up on the display.

When a station is not found
NOT FOUND is displayed and the unit returns to the previous station.

When the TRAFFIC program type is selected
The unit searches for a station transmitting a *7TP code. However, the tuned station may not be broadcasting a traffic announcement currently. Wait for a while. The tuned station broadcasts traffic information regularly and a traffic announcement will be made.

EON SEARCH

During FM RDS reception, the unit switches to radio programs with the specified PTY automatically as soon as they begin.

1 **Press PTY.**
The program type of the currently tuned station is displayed.

2 **Within 4 seconds, press ◄◄ or ►► to select a program type.**

3 **Within 4 seconds, press II SET.**
"EON ON" is displayed for 3 seconds. Then, "EON" starts flashing and the unit enters EON search standby mode.
When a radio program with the specified PTY in another radio station begins, it interrupts the currently playing radio program and the radio program with the specified PTY is heard. At this time, "EON" flashes rapidly.
At the end of the radio program with the specified PTY, the previous FM radio station is restored.
- EON search standby mode is stored until it is cancelled even if the power is turned off.

To restore the previous FM station during reception of the radio program with the specified PTY
Press ◄► **PRESET**.
At this time, EON search standby mode is cancelled.

To cancel EON search standby mode
Keep **PTY** pressed. (Do not release **PTY** yet.) "EON PTY" and the specified PTY are displayed alternately. At this time, press **II SET** with pressing **PTY**. "EON OFF" is displayed and EON search standby mode is cancelled.

NOTE

The EON search function does not work when:
- FM stations are not preset.
- The signals of stations with the specified PTY are weak.
- FM RDS is not received.

OTHER FUNCTION OF RDS CODES

Auto GEQ function

The equalization curve is switched automatically to match the music program type of an RDS station.

Press AG.

AG lights up.

To cancel, press it again.

GEQ matching PTY:

PTY	GEQ
POP M	POP
ROCK M	ROCK
LIGHT M	JAZZ
CLASSICS	CLASSIC
JAZZ	JAZZ
COUNTRY	POP
NATION M	POP
OLDIES	POP
FOLK M	JAZZ
Others	off

The selected GEQ can be changed to suit your preference by pressing **GEQ**. During this time, the Auto GEQ function is cancelled.

Clock-time (*8CT)

The CT function provides the unit with information about the local time. The CT function works whenever a CT station is received.

If you have not set the clock (the clock flashes on the display)

The current time can be set automatically by tuning in to an RDS station.

If no RDS station is preset, tune in to an RDS(CT) station manually by pressing ◄◄ **DOWN** or ►► **UP**.

If the clock does not agree with the broadcast time

An RDS signal will update the clock time on the hour every hour.

***5Program type identification (PTY)**

PTY allows selection of listening by one of 30 or more program types rather than by a station.

***6Enhanced other networks information (EON)**

EON information gives the receiver a cross reference to other stations and allows the receiver to switch from the currently tuned station to another RDS station.

***7Traffic program identification (TP)**

This is a code which informs the receiver that a tuned station regularly broadcasts traffic information.

***8Clock-time (CT)**

CT function provides an accurate clock signal which is self adjusting to time zones and seasonal time changes.

To change the MW tuning interval

The default setting of the MW tuning interval is 9 kHz/step. If you use the unit in an area where the frequency allocation system is 10 kHz/step, change the tuning interval as follows.

Press **POWER** while pressing **TUNER BAND**.

To reset the interval, repeat this procedure.

NOTE

When the MW tuning interval is changed, all preset stations are cleared. The preset stations have to be set again.

The descriptions in this section apply to all types of discs that can be played on this unit (audio CDs, DVDs and video CDs), unless otherwise noted.

BEFORE USE

SUPPORTED DISC FORMATS

This unit can play discs with the following logos.

DVD VIDEO	DVDs (8 cm disc/12 cm disc)
COMPACT disc DIGITAL VIDEO	Video CDs (VCDs) (8 cm disc/12 cm disc)
COMPACT disc DIGITAL AUDIO	Audio CDs (8 cm disc/12 cm disc)

- The unit may not play a CD-R/RW disc that is recorded on personal computers or some kinds of CD-R/RW recorders because of differences in recording platforms.
- Do not attach any seal or label to either side (the recordable side or the labeled side) of a CD-R/RW disc. It may cause malfunction.
- This unit cannot play other types of discs such as CD-Is, CD-ROMs, PHOTO CDs or Aluminum-lined discs.
- Do not use irregular shaped CDs such as heart-shaped or octagonal discs. It may damage both the unit and the disc.
- For the types of VIDEO CDs, see "Types of Video CDs", page 15.

COLOR SYSTEM FOR DVDS AND VCDS

This unit conforms to the PAL colour system and cannot play DVDs or video CDs recorded in the SECAM colour system.

REGION CODE OF THE DISC PLAYER AND DVDS

The DVD player of this unit is designed and manufactured for playback of region "2" encoded DVD software. Region code appears on most DVD labels to indicate which type of player can play the disc.
A DVD without a "2" or "ALL" on its disc label cannot be played on this player. If you try to play such a disc, the message "REGIONAL CODE VIOLATION" will appear on the TV screen.
Some DVDs may not be properly labeled with a region code, although they may be region encoded and thus be limited in its playback area.

SOFTWARE DEPENDENT FEATURES OF DVDS AND VCDS

Some playback operations of DVDs and video CDs may be intentionally fixed by software manufacturers. As this unit plays DVDs and video CDs according to the design of the software manufacturer, some playback features of this player may not be available, while other functions may be added.
Refer to the instructions supplied with the DVDs and video CDs.
Some DVDs made for business purposes may not be played on this player.

NOTE ON PLAYING BACK DTS-ENCODED DISCS

To enjoy DTS Digital Surround™ playback, an external 5.1 channel DTS Digital Surround™ decoder system must be connected to the DIGITAL AUDIO OUT (OPTICAL) jack of this unit.
When playing audio CDs that are DTS-encoded, excessive noise will be exhibited from the speakers connected to the unit. To avoid possible damage to the audio system, the consumer should turn down the volume before playing back such discs, adjust the volume gradually, and keep the volume level low.

DISC-RELATED TERMS

Title (DVD only)
A title is the largest sub-division of a DVD; a movie for video software, or an album for audio software.
Each title is assigned a title number, enabling you to locate the title you want.

Chapter (DVD only)
Chapters are sections in a picture or a musical title on a DVD.
A title is usually composed of several chapters. Each chapter is assigned a chapter number, enabling you to locate the chapter you want.
Some discs, however, may not have chapters recorded.

Track (audio CD and VCD only)
Tracks are sections of a picture or a musical piece on a video CD or an audio CD.
Each track is assigned a track number, enabling you to locate the track you want.

Scene (VCD only)
On a video CD with PBC (PlayBack Control) functions, moving pictures and still pictures are divided into sections called "scenes".
Each scene is displayed in the menu screen and assigned a scene number, enabling you to locate the scene you want.
A scene is composed of one or several tracks.

TYPES OF VIDEO CDS

There are two types of video CDs.

Video CDs equipped with PBC (Version 2.0)
These newer types of VCDs have the PBC (PlayBack Control) feature, which allows you, for example, to select and play back tracks via menus or other computer-like operations. High-resolution stills can also be played back, if they are included in the disc.

Video CDs not equipped with PBC (Version 1.1)
These older types of VCDs allow playback of video pictures as well as sound, but do not have the PBC feature, and are operated in the same way as audio CDs.

In some cases, you may want to play back VCDs equipped with PBC with the PBC feature off. This is because some disc playback features can only be used for VCDs without PBC. See "Playing a VCD without Using PlayBack Control", page 18.

COPYRIGHT PROTECTION

It is forbidden by law to copy, broadcast, show, broadcast via cable, play in public, or rent copyright material without permission.

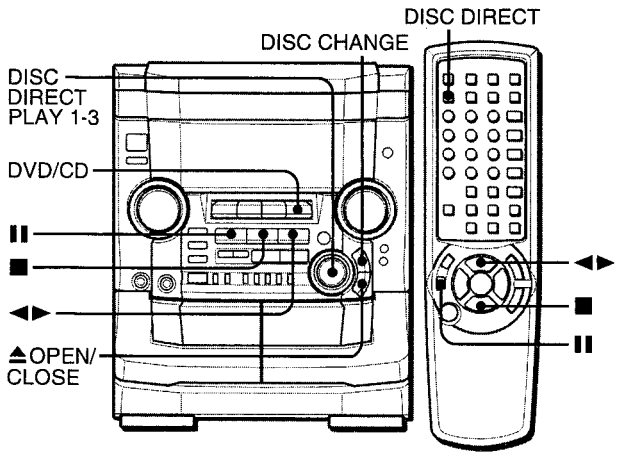
This unit features the copy protection function developed by Macrovision. Copy protection signals are included in some DVD and VCD discs. If you record such discs on a VCR, picture noise will appear during recording and playback.

This product incorporates copyright protection technology that is protected by method claims of certain U.S. patents and other intellectual property rights owned by Macrovision Corporation and other rights owners. Use of this copyright protection technology must be authorized by Macrovision Corporation, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision Corporation. Reverse engineering or disassembly is prohibited.

BASIC OPERATIONS

NOTE

- Make sure the TV set is connected properly and its input source is selected properly (see "Connections", page 4,5 and 6).
- Various guide displays of the current operation are available on the TV screen. To view them, make sure you have "Guide Message ON" in the Setup menu (see "Guide Message", page 43).
- You can select the language for the guide message out of 6 available languages (see "Menu Language", page 43). The display in the default language, English, is used in the descriptions and illustrations in this section.

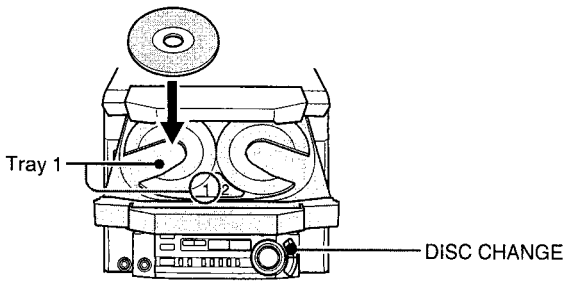


LOADING DISCS

1 Press ▲ OPEN/CLOSE to open the disc compartment.

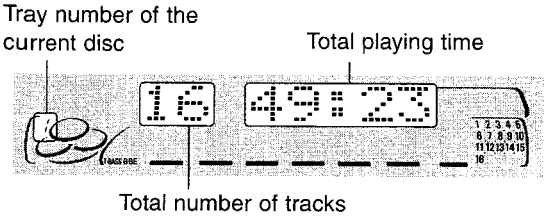
2 Load disc(s) with the label side up.

To play one or two discs, place the discs on tray 1 and/or 2.
To play three discs, press **DISC CHANGE** to rotate the tray after placing two discs. Place the third disc on tray 3.

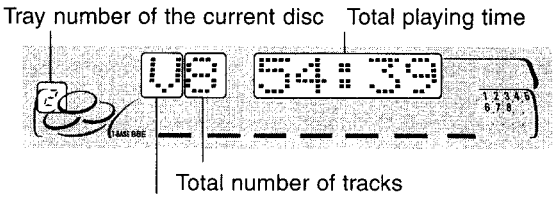


3 Press ▲ OPEN/CLOSE to close the disc compartment.

Audio CD:



VCD without the PBC function:



Type of disc: VCD
(appears only when the total number of tracks is 9 or less).

DVD or a VCD with the PBC function:
Playback starts automatically.

NOTE

- When loading an 8-cm (3-inch) disc, put it onto the inner circle of the tray.
- Do not place more than one compact disc on one disc tray.
- Do not tilt the unit with discs loaded. Doing so may cause malfunctions.
- Do not use irregular shaped CDs such as heart-shaped or octagonal discs. It may damage both the unit and the disc.

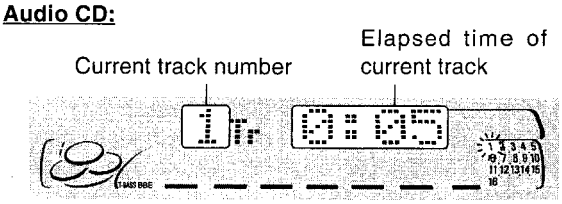
PLAYING DISCS

1 Press DVD/CD.

2 Press ◄►.

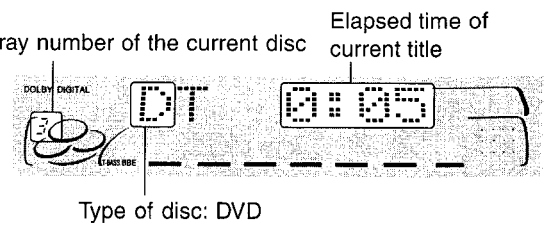
Playback begins with the disc with the lowest tray number, and goes on to play all discs on the trays (All Disc Playback). If disc played back in the course of All Disc Playback is a DVD, or a VCD with the PBC function, however, All Disc Playback is canceled when it finishes playback.

Audio CD:

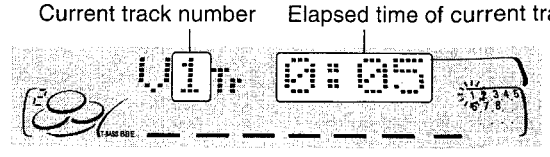


For a DVD, or a VCD with the PBC function, you do not need to press ◄►. Playback starts automatically when the disc is loaded.

DVD:



Video CD:



To play just one disc
Press the **DISC DIRECT PLAY** button (**1** to **3**) for your desired disc.
On the remote control, press **DISC DIRECT**, then press a numbered button (**1** to **3**) to select a disc.
The selected disc is played back once, then playback stops.
You can switch to All Disc Playback if you press the same **DISC DIRECT PLAY** button during playback.

NOTE

- You cannot switch from Single Disc Playback to All Disc Playback if the current disc is a DVD, or a VCD with the PBC function.
- Some DVDs or VCDs may automatically display the menu screen after first loading the disc. See "Using the Software Specific Menu", page 18.
- For DVDs, the **DISC DIRECT PLAY** button may not operate if the Disc Resume setting is set to "ON". In this case, set it to "OFF" (see "Disc Resume", page 48).

STOPPING AND PAUSING

To stop playback
Press ■.
Playback stops. The unit remembers the point at which playback stopped.

To resume playback from the point where it stopped
Press ◄►.
"RESUME" appears in the TV display and playback starts where it last stopped (Resume function).

To clear the point to be resumed
Press ■ again during stop.
"RESUME OFF" appears in the TV display. The resume memory is cleared, and playback starts at the beginning of the disc when ◄► is pressed.

NOTE

- DVD playback is resumed with the subtitle and audio language setting at the time it was stopped, regardless of possible later changes in the Disc Languages setup menu.
- Under the default setting, the point to be resumed is also cleared when the disc tray is opened, the current disc is switched, the power is turned off, or the function is switched.
- Set up can be changed so that the resume memory is retained even after the conditions described above. (See "Disc Resume", page 48).
- The resume function is not available for VCD playback with the PBC function turned on. To turn off PBC, see "Playing a VCD without Using PlayBack Control", page 18 and "PBC", page 48.

To pause playback
Press ❚❚.
To resume playback, press ◄►.

SWITCHING THE CURRENT DISC

On the main unit:
Press the **DISC DIRECT PLAY** button (**1** to **3**) for your desired disc.

On the remote control:
Press **DISC DIRECT**, then press a numbered button (**1** to **3**) to select a disc.
Press the disc number within 3 seconds after pressing **DISC DIRECT**.

Playback switches to the selected disc.

REMOVING DISCS

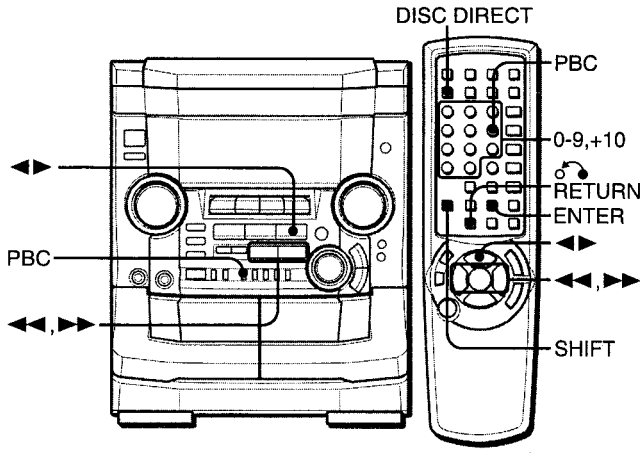
Press ≙ **OPEN/CLOSE**.
The disc tray slides out. The power turns on if pressed when power is off.

To rotate the tray
Press **DISC CHANGE**.

To replace discs during play
While a disc is playing, other discs can be replaced without interrupting current playback.
1 Press **DISC CHANGE**.
2 Replace the disc(s).
3 Press ≙ **OPEN/CLOSE** to close the disc compartment.

SELECTING A TRACK

Besides the methods descibed here, DVDs can also be searched by title, chapter or time. See "Marking and Searching", page 22.



DIRECTLY SELECTING A TRACK WITH THE REMOTE CONTROL (CD AND VCD ONLY)

A track can be selected directly by entering the track number on the remote control, either during playback or stop.
To use this feature with VCDs that support PBC, turn off PBC first (see "Playing a VCD without Using PlayBack Control", below).

1 **Press DISC DIRECT, then press a numbered button (1-3) to select a disc.**
Press the disc number within 3 seconds after pressing **DISC DIRECT**.

2 **Press the numbered buttons for the desired track.**
Example:
To play track 12, press **+10**, **2**.
To play track 20, press **+10**, **+10**, **0**.
Playback begins at the beginning of the selected track and continutes to the end of the disc.

FAST FORWARD/REVERSE PLAYBACK

Hold down ◄◄ or ►► during playback.

For CDs and VCDs, "◄◄x 5" or "►►x 5" is displayed on the TV screen. For DVDs, "◄◄x 2" or "►►x 2" is displayed on the TV screen.
The disc is played back forward (when holding down ►►) or in reverse (when holding down ◄◄) at high speed.

To change playback speed
Hold down ◄◄ or ►► repeatedly.
For CDs and VCDs, the playback speed alternates between 5 times and 16 times. For DVDs, the playback speed changes among double speed, 8 times and 32 times.

To return to normal playback
Press ◄►.

NOTE

- There is no audio during fast DVD or Video CD playback.
- The fast playback speed is the value for a disc with an average bit rate. The actual speed may be different for some discs.

SKIPPING

Press ◄◄ or ►►, or turn MULTI JOG during playback.

With each press of ►►, the disc position skips to the succeeding track.
When ◄◄ is pressed once, the disc position skips back to the beginning of the current track.
When ◄◄ is pressed twice or more, the disc position skips back to the previous track(s).
Depending on scenes, this operation may not function on DVDs.

USING THE SOFTWARE SPECIFIC MENU (DVD AND VCD ONLY)

This unit supports menu interfaces that are contained in some DVD or VCD software. For DVDs or VCDs with such menus, the menu screen may automatically be displayed on the TV screen after first loading the disc.

DVDs

1 **Press ▲▼◄► to select your desired program.**

2 **Press ENTER to begin playback.**

To display the menu
Press **TITLE** or **MENU** during playback or stop.

VCDs with the PBC function

Press the number buttons to select your desired program.

To display the menu
Press ↶**RETURN**.

NOTE

- For some DVDs you can select the menu language out of the ones available. See "Disc Menu", page 45.
- The contents and operation of the software specific menu vary with the disc. Follow the instructions on the disc and on the menu screen.

PLAYING A VCD WITHOUT USING PLAYBACK CONTROL (PBC)

With PBC (PlayBack Control), playback of VCDs is controlled from the menu display on the TV screen, and the menu display appears automatically after playback of each selection.
You can, however, choose to set PBC off, and play the entire VCD without returning to the menu display, just like audio CDs. This, for example, allows you to use Repeat and Programmed Playback for VCDs with PBC.
For more on PBC, see "Types of Video CDs", page 15.

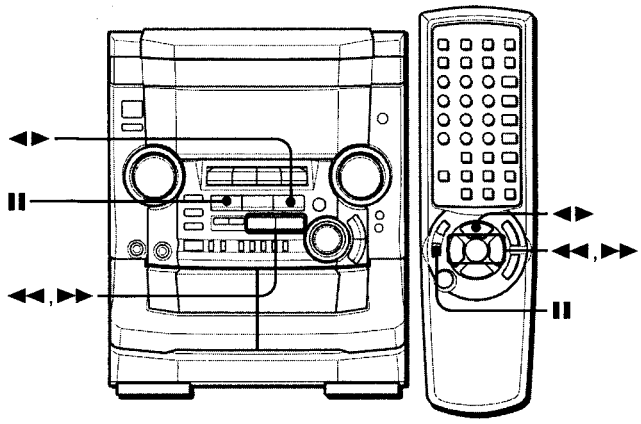
1 **Load the VCD.**

2 **Press PBC (during playback or stop).**
When using the remote control, press **PBC** while pressing **SHIFT**.
"PBC" disappears from the display panel, and the menu playback feature is disabled.

NOTE

- If **PBC** is pressed during playback, playback stops before the PBC mode changes.
- You can set the unit's preference whether to play VCDs with PBC or not. See "PBC", page 48.

FRAME ADVANCE AND SLOW PLAYBACK



FRAME ADVANCE (DVD AND VCD ONLY)

1 **Press II to pause the disc.**

2 **Press II repeatedly to advance frames.**
Each time you press the button, playback advances one frame.

To return to normal playback
Press ◄►.

NOTE

There is no audio during Frame Advance.

SLOW PLAYBACK (DVD AND VCD ONLY)

1 **Press II to pause the disc.**

2 **Hold down ◄◄ or ►►.**
The track is played back slowly.

To change the slow forward playback speed
Each time ►► is held down, the playback speed changes as follows:

1/30 → 1/15 → 1/5 → 1/2 →

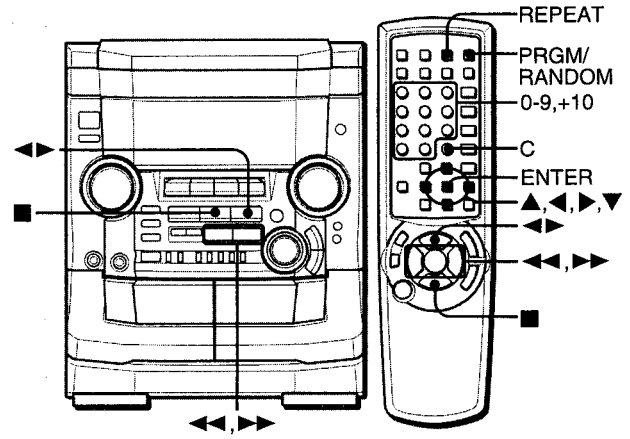
To change the slow reverse playback speed
For DVDs, the playback speed alternates between 1/15 and 1/2 speed each time ◄◄ is held down. Only 1/15 speed is available for VCDs.

To return to normal playback
Press ◄►.

NOTE

There is no audio during slow playback.

REPEAT, PROGRAMMED AND RANDOM PLAYBACK

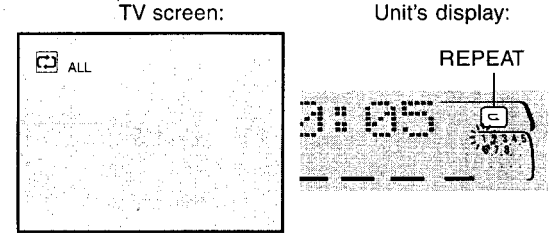


REPEAT PLAYBACK (CD AND VCD)

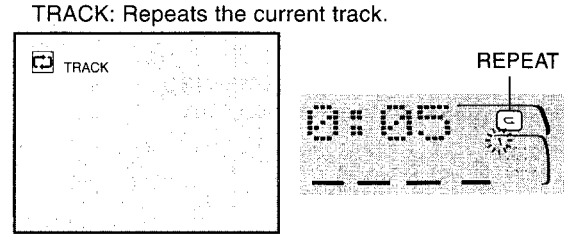
To use this feature with VCDs that support PBC, turn off PBC first (see "Playing a VCD without Using PlayBack Control", page 18).

Press REPEAT repeatedly on the remote control during playback.
With each press, the Repeat playback mode changes:

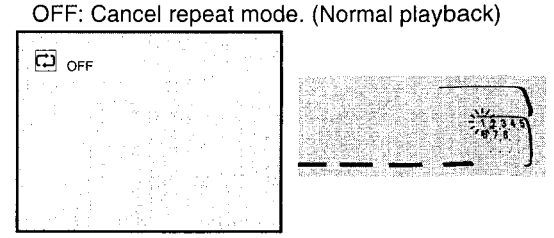
ALL: Repeats all tracks on the current disc.



TRACK: Repeats the current track.



OFF: Cancel repeat mode. (Normal playback)



To cancel repeat playback
Press **REPEAT** on the remote control repeatedly until the repeat indication disappears in the unit's display.
The unit goes back to normal playback.

To repeat playback of selected track(s)
Program the track(s) with the programmed playback function, and then press **REPEAT** to repeat playback of the programmed tracks (see "Programmed Playback", page 20).

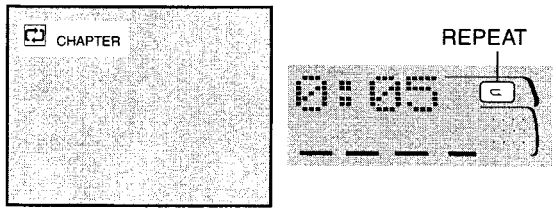
REPEAT PLAYBACK (DVD)

Press REPEAT repeatedly on the remote control during playback.

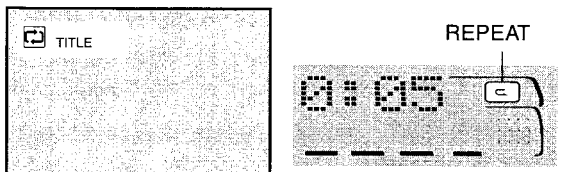
With each press, the Repeat playback mode changes:

CHAPTER: Repeats the current chapter.

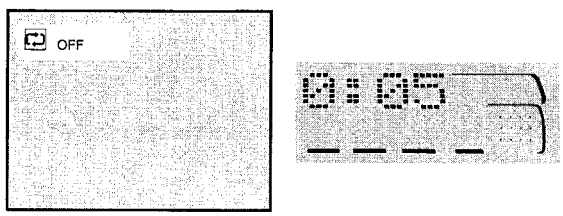
TV screen: Unit's display:



TITLE: Repeats the current title.



OFF: Cancel repeat mode. (Normal playback)



To cancel repeat playback

Press **REPEAT** on the remote control repeatedly until the repeat indication disappears in the unit's display.

The unit goes back to normal playback.

PROGRAMMED PLAYBACK (CD AND VCD ONLY)

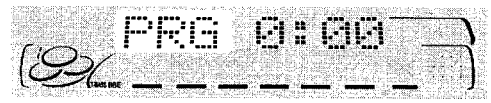
You can program up to 30 selected tracks to be played back in your desired order.

To use this feature with VCDs that support PBC, turn off PBC first (see "Playing a VCD without Using PlayBack Control", page 18).

Use the remote control.

1 **Press PRGM/RANDOM on the remote control in stop mode.**

"PROGRAM" appears on the TV screen and "PRG" appears on the unit's display.



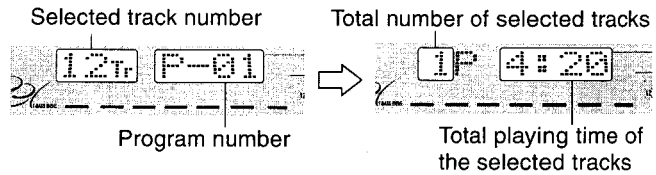
2 **Press DISC DIRECT and within 3 seconds press 1, 2 or 3 to select a disc.**

Go to the next step when the tray stops rotating.

3 **Press the numbered button(s) on the remote control to select the track to be played first.**

To select track 12, press **+10**, **2**.

To select track 20, press **+10**, **+10**, **0**.



4 **Repeat steps 2 and 3 to program other tracks.**

5 **Press ◄► to start playback.**

The programmed tracks are played back in the order of entry.

The currently playing track number flashes and all the remaining track numbers are lit in the unit's display.

When programmed playback is complete or when ■ is pressed to stop playback, the playback program reappears.

To stop programmed playback

Press ■.

If you press ◄► to restart, playback starts from the 1st programmed track.

(In programmed playback, Disc Resume function is not in effect.)

To clear the program

Press ■ **CLEAR** in stop mode.

All the programmed contents are cleared.

NOTE

The program is also cleared when the disc tray is opened, the function is switched or the power is turned off.

To check the program

Press ►► during stop.
With each press, the program number and the track number are shown progressively on the unit's display.

To add tracks to the program

Repeat steps 2 and 3 in stop mode. The track will be programmed after the last track.

To play the programmed tracks repeatedly

1 Follow all the steps of "Programmed Playback" to program tracks.
2 Press **REPEAT** .
The programmed tracks are played repeatedly.

To skip tracks

Press ◄◄ or ►► repeatedly.
Playback skips to the previous or the succeeding track(s) within the program.

RANDOM PLAYBACK (CD AND VCD ONLY)

All the tracks on the selected disc or all the discs can be played randomly.
To use this feature with VCDs that support PBC, turn off PBC first (see "Playing a VCD without Using PlayBack Control", page 18).

1 Press PRGM/RANDOM repeatedly on the remote control to show the random playback indication on the unit's display.

Press once if during playback, twice if during stop.
"RANDOM" appears on the TV screen and the random playback indication appears in the unit's display.

NOTE

Pressing **PRGM/RANDOM** once or twice during stop will bring up the programmed playback setting.

2 To play all discs, press ◄► to start play.

To play a single disc, press **DISC DIRECT** and within 3 seconds press **1, 2** or **3** to start play.

To cancel random playback

Press **PRGM/RANDOM** once on the remote control.
"OFF" appears on the TV screen and the random playback indication disappears in the unit's display. The unit goes back to normal playback.

NOTE

- Random playback of all discs cannot be repeated with the Repeat function.
- During random playback you cannot skip back to the previously played track with ◄◄.

BLANK SKIP PLAY (CD AND VCD ONLY)

The silent portions between tracks recorded on a CD can be skipped during playback.
To use this feature with VCDs that support PBC, turn off PBC first (see "Playing a VCD without Using PlayBack Control", page 18).

1 Press CD BLANK SKIP.

"CD BLANK SKIP ON" is displayed and a small dot near ⏲ will appear in the display.

2 Press ◄► to start playback.

The silent portions between tracks will be skipped, and the sound will be played back without interruption. If a track fades out (ends with the sound gradually decreasing), the fadeout portion also will be skipped.

To return to normal playback

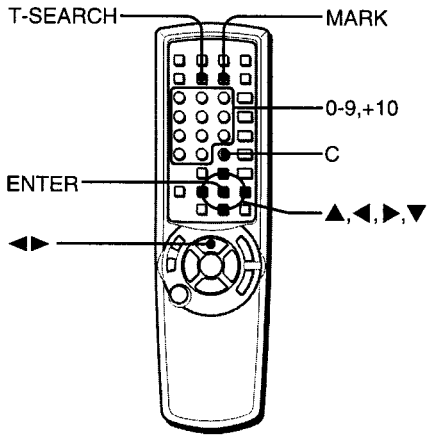
Press **CD BLANK SKIP** again, and the dot in the display will disappear.

NOTE

- There may be a case where BLANK SKIP PLAY does not function correctly.
- BLANK SKIP PLAY is automatically canceled when performing A! EDIT RECORDING (page 31), PROGRAMMED EDIT RECORDING (page 32), or recording during PROGRAMMED PLAYBACK (page 20).

MARKING AND SEARCHING

Marking and searching functions are available only for DVDs.



MARKING (DVD ONLY)

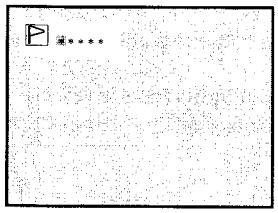
You can mark any point in a DVD and start playback from there. You can mark up to 5 discs, each with up to 5 points.

1 Play back the disc and locate the desired point to mark.

You can use functions such as "FAST FORWARD/REWIND", "SKIPPING" or "SEARCH" to locate your desired point.

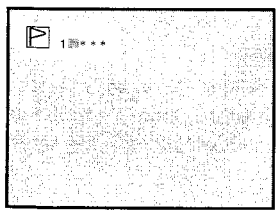
2 Press MARK.

"⊳" appears on the TV screen and the unit enters the Mark mode. The current Mark memory number is highlighted by the cursor.



3 Press ENTER.

The current location is marked in the Mark memory.



4 Press MARK again to exit the Mark mode.

NOTE

The Mark mode display is available only by the TV display.

To mark other points

1 Follow steps 1 and 2 of "Marking", above.
2 Press ◀, ▶ to move the cursor to the desired Mark memory number.
3 Follow steps 3 and 4 of "Marking", above.

To play back from a marked point

1 Press **MARK** during playback.
"⊳" appears on the TV screen and the unit enters the Mark mode.
2 Press ◀, ▶ to move the cursor, or press a corresponding number button (**1** - **5**), to select the desired Mark memory number.
3 Press **ENTER** or ◀▶.
Playback starts from the marked point.

To clear a marked point

1 Press **MARK** during playback.
"⊳" appears on the TV screen and the unit enters the Mark mode.
2 Press ◀, ▶ to move the cursor or press a corresponding number button (**1** - **5**) to select the desired Mark memory number.
3 Press **C**.
The Mark memory is cleared.

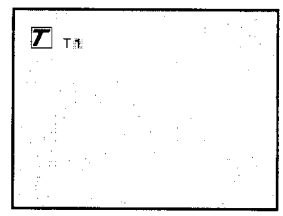
NOTE

- When the 6th DVD disc is inserted, the mark data for the oldest disc is overwritten by the disc information of the new disc and deleted, even when a new point is not memorized.
- A marked point is recalled with the subtitle and audio language setting at the time it was marked, regardless of possible later changes to the setting.

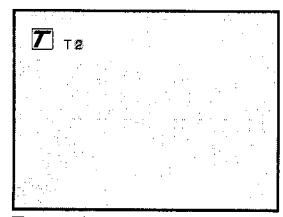
TITLE SEARCH (DVD ONLY)

You can specify the playback location of a DVD by the title number.
This operation can be performed either during playback or stop.

1 Press T-SEARCH.



2 Press the numbered buttons to enter the desired title number.



Example:
To play title number 2, press **2**.
To play title number 20, press **+10**, **+10**, **0**.

You can also use ▲ and ▼ to change the selected title number in the TV display.

If you entered a wrong number
Press **C** to remove the number you entered. Then enter the correct number.

3 Press ENTER or ◀▶.

Playback begins at the specified title.

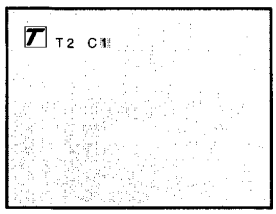
NOTE

If you specify a title number which does not exist on the disc, the ⃠ symbol is displayed. In this case, repeat from step 1 with a valid title number.

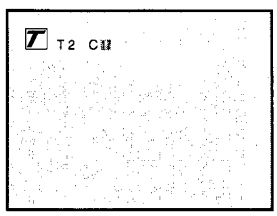
CHAPTER SEARCH (DVD ONLY)

You can specify the playback location of a DVD by the chapter number.
This operation can be performed during playback.

1 Press T-SEARCH twice.



2 Press the numbered buttons to enter the desired chapter number.



Example:
To play chapter number 17, press **+10**, **7**.

You can also use ▲ and ▼ to change the selected chapter number in the TV display.

If you entered a wrong number
Press **C** to remove the number you entered. Then enter the correct number.

3 Press ENTER or ◀▶.

Playback begins at the specified chapter.

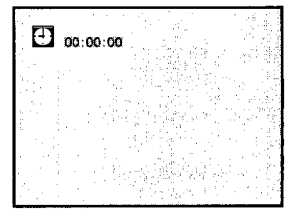
NOTE

If you specify a chapter number which does not exist on the disc, the ⃠ symbol is displayed. In this case, repeat from step 1 with a valid chapter number.

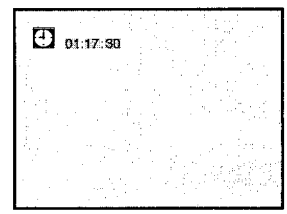
TIME SEARCH (DVD ONLY)

With DVDs that support display of elapsed time, you can locate a point in the title by specifying the time from the beginning of this title.
This operation can be performed during playback.

1 Press T-SEARCH 3 times.



2 Press the numbered buttons to enter the time of the desired location.



Example:
To specify 1:17:30 (1 hour 17 minutes 30 seconds), press **1**, **1**, **7**, **3** and **0**.
To specify 0:08:07 (8 minutes 7 seconds), press **8**, **0** and **7**.

If you entered the wrong numbers
Press **C** repeatedly to remove the numbers you entered. Then enter the correct numbers.

3 Press ENTER or ◀▶.

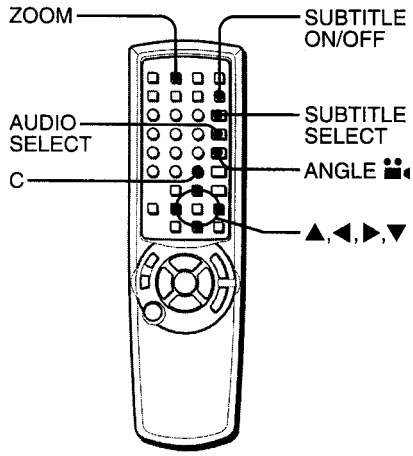
Playback begins at the specified location.

NOTE

- If you specify a time greater than the length of the title, the ⃠ symbol is displayed. In this case, repeat from step 1 with a valid time.
- Time search may not work with some discs even if they support the display of elapsed time.

SPECIAL DVD FEATURES

Operations for special features characteristic to DVDs are described here.



ZOOM FUNCTION (DVD ONLY)

Press ZOOM on the remote control during playback
The picture around the center of the screen is enlarged to approximately 4 times.

To move the enlarged picture
Press ▲▼◀▶.
To return to the center of the picture, press **C**.

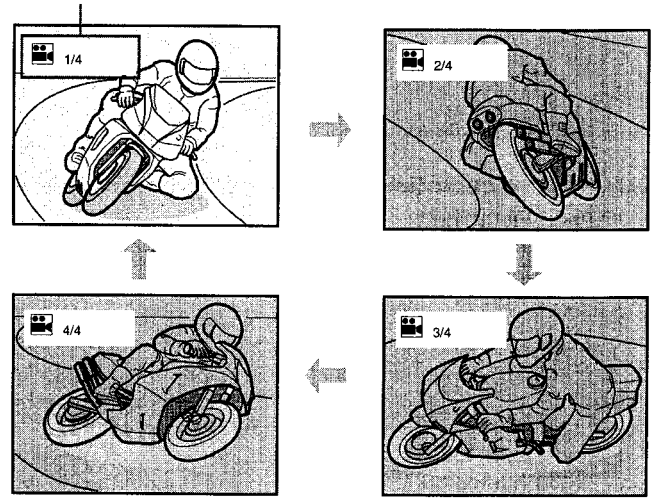
To cancel zoom
Press **ZOOM** again.

CHANGING THE ANGLE (DVD ONLY)

When playing back DVDs shot with multi-angles, you can select the angle to view the scene.

Press ANGLE repeatedly to select a viewing angle.
With each press, the angle will change.

1st out of 4 available angles for the scene.



NOTE

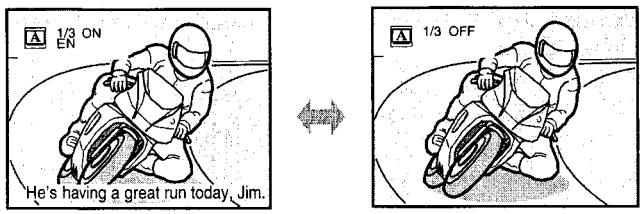
If you press **ANGLE** when playing back a scene or a disc without multiple viewing angles, the ⃠ symbol is displayed.

SUBTITLES (DVD ONLY)

You can display the subtitles on the screen when playing DVDs which contain them. You can also change the subtitle language if more than one is available.

Press SUBTITLE ON / OFF during playback.

The subtitles will be displayed.



To turn off the subtitles

Press **SUBTITLE ON / OFF** again.

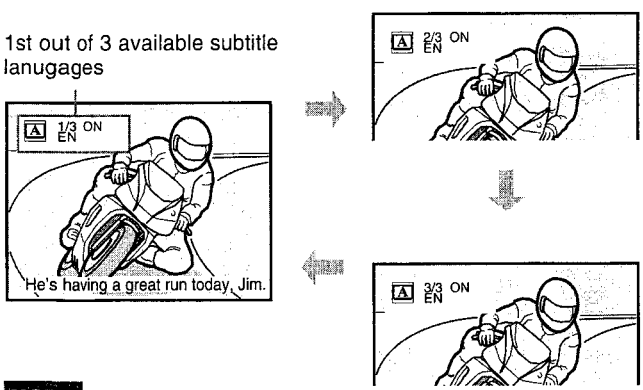
NOTE

- If you press **SUBTITLE ON / OFF** when playing a disc without subtitles, the ⃠ symbol is displayed.
- Some discs have subtitles on by default. With such discs, **SUBTITLE ON / OFF** may not allow you to remove the subtitle display.

To change the subtitle language

Press **SUBTITLE SELECT** to select the desired subtitle language.

1st out of 3 available subtitle lanugages



NOTE

- The subtitle language can be changed only if the disc contains more than one subtitle language. The number of available subtitle languages varies with the disc.
- The subtitle language first displayed is specified by the subtitle setting and can be changed (see "Subtitle Language", page 44). If the preferred subtitle language is not available on the disc, the disc will determine which subtitles are shown.
- It may take some discs a few moments after you press **SUBTITLE SELECT** until the new subtitles are displayed.

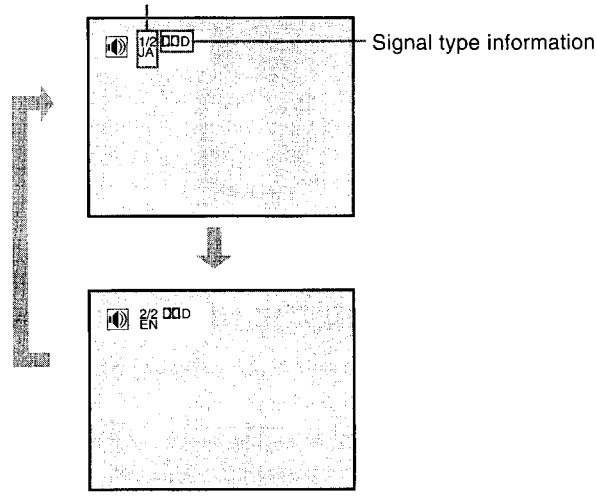
CHANGING AUDIO TRACKS (DVD ONLY)

Some DVDs have more than one audio tracks, such as soundtracks in different languages. You can change the audio track when playing such discs.

Press AUDIO SELECT during playback.

Each time you press the button, the audio track will change.

1st out of 2 available audio tracks



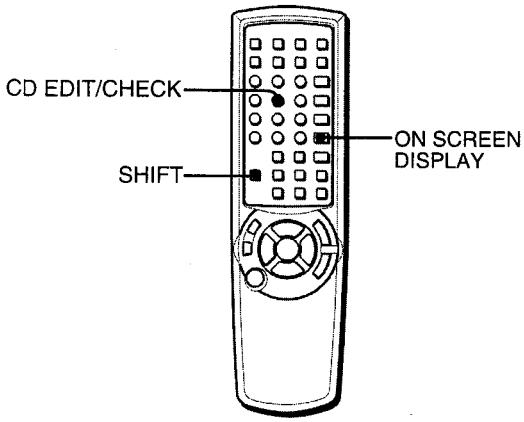
Signal type information

See "DISPLAYING PLAYBACK STATUS OF THE TV SCREEN " page 27.

NOTE

- The audio track can be changed only if the disc contains multiple audio tracks. The number of available audio tracks varies with the disc.
- The audio track language first played is specified by the audio language setting and can be changed (see "Audio Language", page 44). If the preferred audio track language is not available on the disc, the disc will determine which audio track language is played.

CHANGING THE DISPLAY INFORMATION



CHANGING THE PLAYBACK TIME INFORMATION ON THE UNIT'S DISPLAY

Playback time information on the unit's display can be changed.

Press CD EDIT/CHECK repeatedly while pressing SHIFT on the remote control during playback.

With each press, the display on changes as follows:
Audio and Video CDs

Number and elapsed time of current track
↓
Number and remaining time of current track
↓
Elapsed time of the current disc
↓
Remaining time of the current disc
↓
(back to Number and elapsed time of current track)

DVDs

Elapsed time of current title ("DT")
↓
Remaining time of current title ("DT")
↓
Elapsed time of the current chapter ("DC")
↓
Remaining time of the current chapter ("DC")
↓
(back to Elapsed time of current title ("DT"))

NOTE

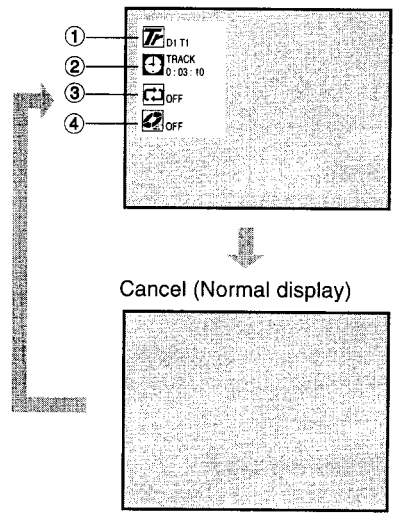
- During programmed playback or random playback you cannot change the playback time information on the unit's display.
- When PBC is on, the playback time information for VCDs does not change as described above.

DISPLAYING PLAYBACK STATUS ON THE TV SCREEN

General playback status can be displayed on the TV screen.

Press ON SCREEN DISPLAY repeatedly.

[Audio CD]
With each press, the display on the TV screen alternates between on and off:



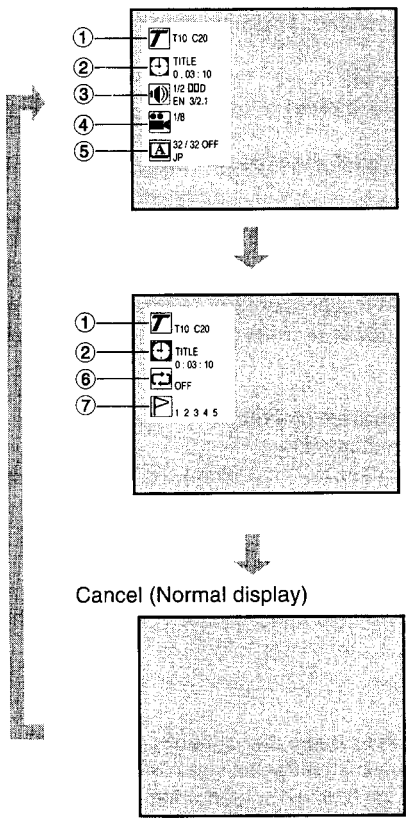
① shows the disc number and the track number.

② shows the elapsed playing time during playback and the total playing time or the playback resume point during stop.

③ shows the repeat mode.

④ shows the playback mode (PROGRAM, RANDOM or OFF).

[DVD]
With each press, the display on the TV screen changes as follows:



① shows the title number and the chapter number, or "MENU" during menu display.

② shows the elapsed playing time or remaining time during playback, or the time of the resume point when stopped.

③ shows the audio information.
One of the following will be displayed.
- DD D: Dolby Digital signal.
  The numbers below indicate the number of front and rear audio channels. For example,
  "2/0" = [Conventional stereo] two front channels (left and right) and no rear channel
  "3/2.1" [5.1-channel surround] = three front channels (left, right and center), two rear channels (left rear and right rear) and LFE (Low Frequency Effects).
- dts: DTS signal.
- LPCM: Linear PCM signal. The sampling frequency and the D/A conversion bits are displayed below, such as "48k 16bit".
- KARAOKE: Karaoke signal. The currently active vocal track is displayed below, such as "VOCAL 1 + 2".
- MPEG: MPEG audio signal.

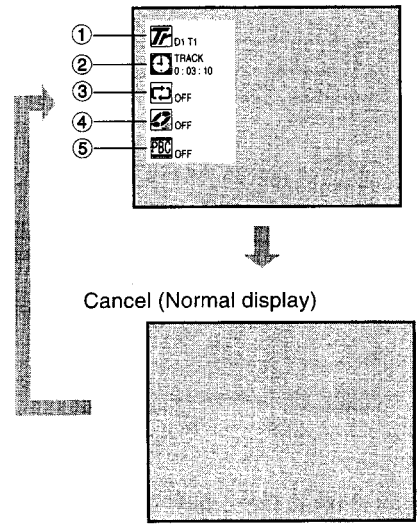
④ shows the angle information.

⑤ shows the subtitle information.

⑥ shows the repeat mode.

⑦ shows the memorized mark points information.

[VCD]
With each press, the display on the TV screen alternates between on and off:



① shows the disc number and the track number.

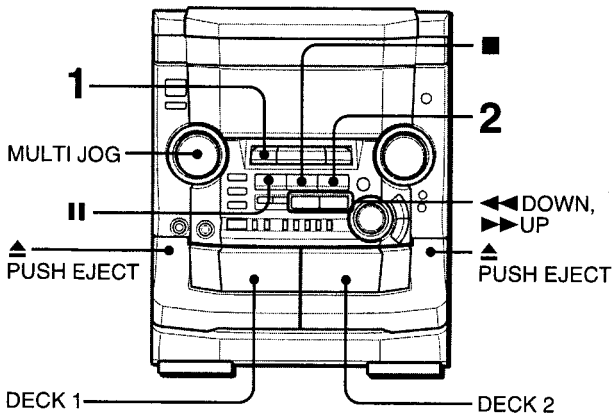
② shows the elapsed playing time during playback and the total playing time or the playback resume point during stop.

③ shows the repeat mode.

④ shows the playback mode (PROGRAM, RANDOM or OFF).

⑤ shows if PBC is on or off.

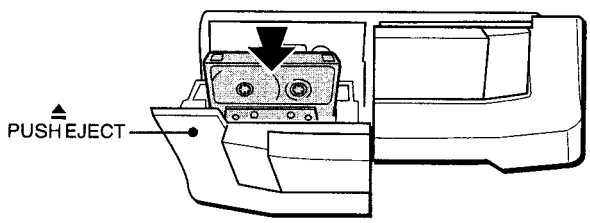
BASIC OPERATIONS



This unit is designed for optimal playback of Type I (normal) tapes.

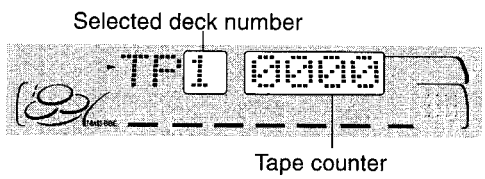
- On deck 1, tapes are always played back on both sides. On deck 2, tapes are played back only on the side facing out from the unit.

1 Press TAPE and press ⏏ PUSH EJECT to open the cassette holder.



Insert a tape with the exposed side down. Push the cassette holder to close.

2 Press ◀▶ to start play.



To select a playing deck
When tapes are loaded in both decks, press **TAPE** first to select a deck.
The selected deck number is displayed.

To stop play, press ■.
To pause play (deck 2 only), press **II**. To resume play, press again.
To change the playback side (deck 1 only), press ◀▶ in play or pause mode.
To fast forward or rewind, press ◀◀ or ▶▶. Then press ■ to stop the tape.

To start play when the power is off (Direct Play Function)
Press **TAPE**. The power is turned on and play of the inserted tape begins.

To set the tape counter to 0000
Press ■ **CLEAR** in stop mode.
The counter is also set to 0000 when the cassette holder is opened.

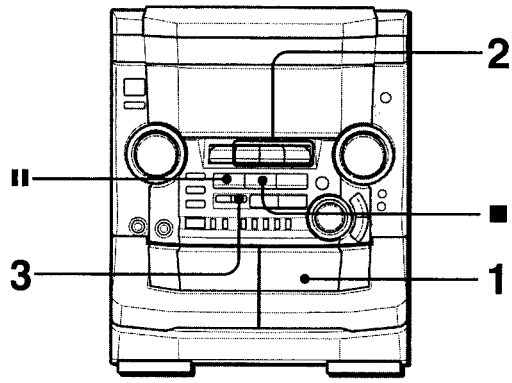
When tapes are loaded in both decks
After playback on deck 1 finishes, the tape in the deck 2 will start to play without interruption and will stop at the end of the tape. (Continuous play)

NOTE

Type II (High position) tapes can also be played back in this unit. When playing back a Type II tape, turn **MULTI JOG** to display "SOFT" in the display. This will set the optimum playback sound for Type II tapes. However, "SOFT" playback will be canceled if any graphic equalizer is selected (page 9), the unit is switched to a different audio source, the cassette holder is open, or when the power is turned off.

BASIC RECORDING

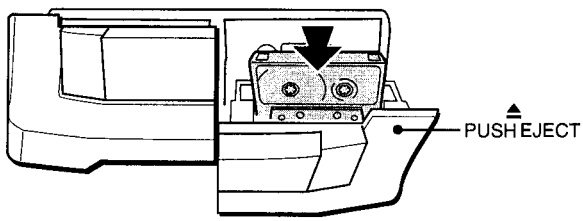
This section explains how to record from the tuner, disc player, or external equipment.



Preparation
- Use Type I (normal) tapes only.
- Set the tape to the point where recording will start.
- Note that recording is done on only one side of the tape.

1 Insert the tape to be recorded on into deck 2.

Insert the tape with the side to be recorded on first facing out from the unit.



2 Press function (DVD/CD, TUNER or VIDEO/AUX) and prepare the source to be recorded.

To record from the disc player, press **DVD/CD** and load the disc(s).
To record from a radio broadcast, press **TUNER** and tune in to a station.
To record from a connected source, press **VIDEO/AUX**.

3 Press ● REC/REC MUTE to start recording.

When recording from a connected source, start playback of the source.

When the selected function is DVD/CD, playback and recording start simultaneously.

To stop recording, press ■.
To pause recording, press II. (Applicable when the source is TUNER or VIDEO/AUX) To resume recording, press it again.

Sound adjustment during recording
The output volume and tone (except BBE) of the speakers or headphones are freely varied without affecting of the recording.

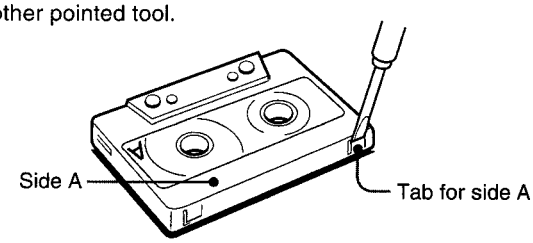
INSERTING BLANK SPACES

Insertion of 4-second blank spaces enables you to activate the Music Sensor function. (Applicable when the source is TUNER or VIDEO/AUX.)

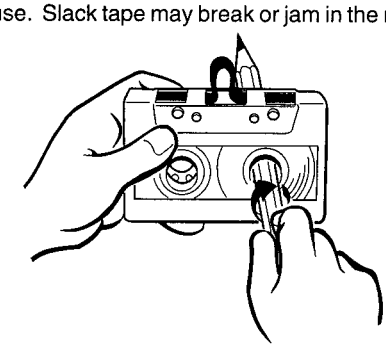
1 **Press ● REC/REC MUTE during recording or while in recording pause mode.**
REC on the display flashes for 4 seconds and 4-second blank space is made. Then, the deck enters the recording pause mode.
2 **Press II to resume recording.**

To insert a blank space of less than 4 seconds, press ● **REC/REC MUTE** again while REC is flashing.
To insert blank spaces of more than 4 seconds, after the deck enters recording pause mode, press ● **REC/REC MUTE** again. Each time the button is pressed, a 4-second blank space is added.

About cassette tapes
- **To prevent accidental erasure**, break off the plastic tabs on the cassette tape after recording with a screwdriver or other pointed tool.



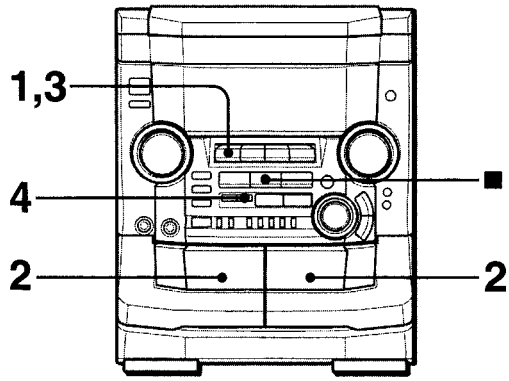
To record on the tape again, cover the tab openings with adhesive tape, etc.
- **120-minute or longer tapes** are extremely thin and easily deformed or damaged. They are not recommended.
- **Take up any slack in** the tape with a pencil or similar tool before use. Slack tape may break or jam in the mechanism.



NOTE
- If squealing or beating sounds occur when recording an MW or LW broadcast, press **MONO TUNER** on the remote control while pressing **SHIFT** until small dot, and "BEAT 1" or "BEAT 2" is displayed, so as to eliminate the noise.
- When recording an externally connected source via the VIDEO/AUX jacks, the small dot near the ⏲ lights up continuously in the display if the input level is too high.
In this case, stop recording and adjust the input level until the dot lights intermittently (page 41).
- "Can't REC" is displayed if you attempt to record on a tape with the plastic tabs broken off.

To erase a recording
Make sure the microphone is not connected to this unit. Set the microphone volume and the echo level to OFF (see page 36).
1 Insert the tape to be erased into deck 2 and press **TAPE DECK 1/2** to display "TP 2".
2 Set the tape to the point where the erasure is to be started.
3 Press ● **REC/REC MUTE** to start the erasure.

DUBBING A TAPE MANUALLY



NOTE

- Set the tape to the point where recording will start.
- Note that recording will be done on one side of the tape only.

***1* Press TAPE.**

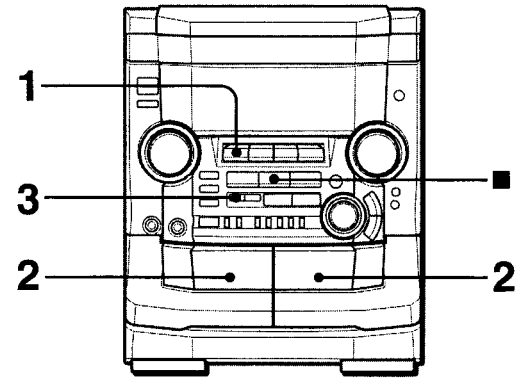
***2* Insert the original tape into deck 1 and the tape to be recorded on into deck 2.**
Insert the tapes with the sides to be played back or recorded on facing out from the unit.

***3* Press TAPE DECK 1/2 to select deck 1.**
"TP 1" is displayed.

***4* Press ● REC/REC MUTE to start recording.**
Playing and recording start simultaneously.

To stop dubbing
Press ■.

DUBBING THE WHOLE TAPE



This function allows you to make exact copies of the original tape.

NOTE

- Dubbing does not start from a point halfway in the tape.
- Note that recording will be done on one side of the tape only.

***1* Press TAPE.**

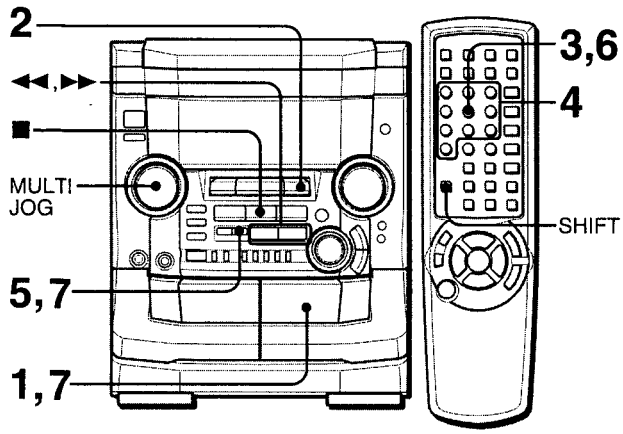
***2* Insert the original tape into deck 1 and the tape to be recorded on into deck 2.**
Insert each tape with the side to be played back or recorded on facing out from the unit.

***3* Press SYNC DUB to start recording.**

The tapes are rewound to the beginning of the front sides, and recording starts.

To stop dubbing
Press ■.

AI EDIT RECORDING



The AI edit recording function enables CD recording without worrying about tape length and track length. When a CD is inserted, the unit automatically calculates the total track length. If necessary, the order of tracks is rearranged so that no track is cut short.
(AI: Artificial Intelligence)

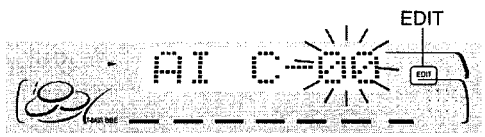
NOTE

AI edit recording will not start from a point halfway into the tape. The tape must be recorded from the beginning of either side.

1 **Insert the tape into deck 2.**
Insert the tape with the side to be recorded on first facing out from the unit.

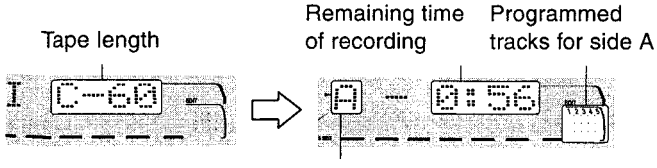
2 **Press DVD/CD and load the disc on tray 1.**

3 **Press CD EDIT/CHECK once while pressing SHIFT on the remote control.**
"EDIT" and "AI" are displayed.



- When "PRGM" is displayed, press **CD EDIT/CHECK** while pressing **SHIFT** again.

4 **Press numbered buttons 0-9 on the remote control to designate the tape length.**
10 to 99 minutes can be specified.
Example: When using a 60-minute tape, press **6** and **0**.
In a few seconds, the tracks to be recorded on each side of the tape are determined.
- ◀◀, ▶▶ or **MULTI JOG** are also available to designate the tape length.



Tape side
A: First recording side
B: Second recording side

5 **Press ● REC/REC MUTE to start recording on the first side.**
The tape is rewound to the beginning of the first side, the lead segment is played through for 10 seconds, and recording starts. When the last track programmed for side A is finished, deck 2 enters the recording stop mode. After entering the recording stop mode, go to step 6.

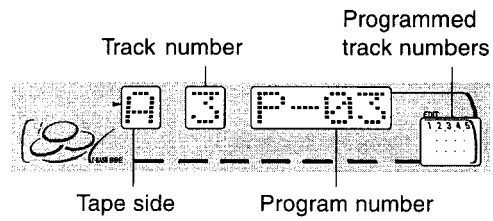
6 **Press CD EDIT/CHECK while pressing SHIFT on the remote control to display the program for the second recording.**
"B" is displayed.

7 **Turn over the tape in deck 2 and press ● REC/REC MUTE to start recording on the second side.**

To stop recording
Press ■. Recording and CD play stop simultaneously.

To clear the edit program
Press ■ **CLEAR** twice so that "EDIT" disappears on the display.

To check the order of the programmed track numbers
Before recording, press **CD EDIT/CHECK** while pressing **SHIFT** on the remote control to select side A or B, and press ◀◀ or ▶▶ repeatedly.

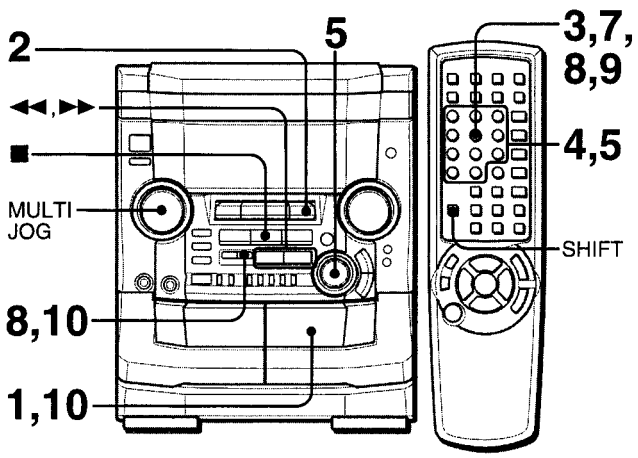


Time on cassette tapes and editing time
The actual cassette recording time is usually a little longer than the specified recording time printed on the label. This unit can program tracks to use the extra time. When the total recording time is a little longer than the tape's specified recording time after editing, the display shows the extra time (without a minus mark), instead of the time remaining on the tape (with the minus mark).

NOTE

- The AI edit recording function cannot be used with discs containing 100 tracks or more.
- DVDs cannot be recorded with AI Edit recording.

PROGRAMMED EDIT RECORDING



In the programmed edit recording function the tracks can be programmed while checking the remaining time on each side of the tape.

NOTE

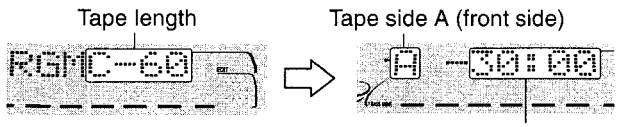
The programmed edit recording will not start from a point halfway in the tape. The tape must be recorded on from the beginning of either side.

1 **Insert the tape into deck 2.**
Insert the tape with the side to be recorded on first facing out from the unit.

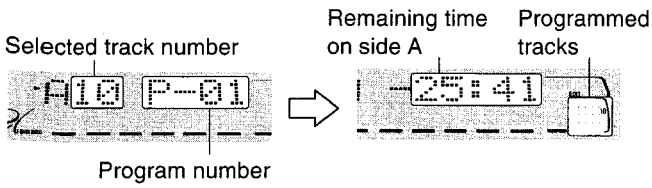
2 **Press DVD/CD and load the disc(s).**

3 **Press CD EDIT/CHECK twice while pressing SHIFT on the remote control.**
"EDIT" and "PRGM" are displayed.
- When "AI" is displayed, press **CD EDIT/CHECK** while pressing **SHIFT** again.

4 **Press numbered buttons on the remote control to designate the tape length.**
10 to 99 minutes can be specified.
- **◄◄**, **►►** or **MULTI JOG** are also available to designate the tape length.

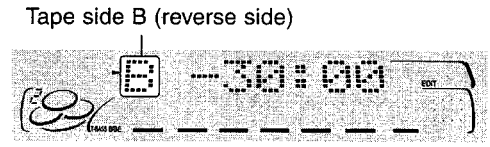


5 **Press DISC DIRECT PLAY 1-3 to select a disc.**
On the remote control, press **DISC DIRECT**, then press a numbered button (**1** to **3**).
Then, press numbered buttons 0-9 and +10 on the remote control to program a track.
Example: To select the 10th track of disc 2, press **DISC DIRECT PLAY 2**, then press **+10** and **0**.



6 **Repeat step 5 for the rest of the tracks for side A.**
Wait until the remaining time is displayed in step 5 before programming additional tracks.
A track whose playing time is longer than the remaining time cannot be programmed.

7 **Press CD EDIT/CHECK while pressing SHIFT on the remote control to select side B and program the tracks for side B.**
After confirming "B" on the display, repeat step 5.



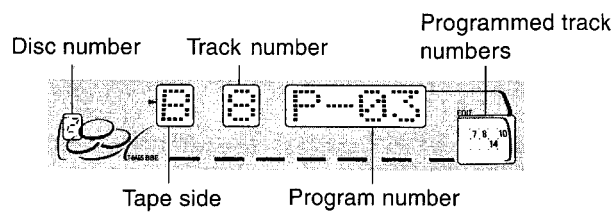
8 **Press CD EDIT/CHECK while pressing SHIFT on the remote control to select side A and press ● REC/REC MUTE to start recording.**
The tape is rewound to the beginning of the front side, the lead segment is played through for 10 seconds, and recording starts. When the last track programmed for side A is finished, deck 2 enters the recording stop mode. After entering the recording stop mode, go to step 9.

9 **Press CD EDIT/CHECK while pressing SHIFT on the remote control for recording of the second side.**
"B" is displayed.

10 **Turn over the tape in deck 2 and press ● REC/REC MUTE to start recording.**
Recording starts.

To stop recording
Press ■. Recording and CD play stop simultaneously.

To check the order of the programmed track numbers
Before recording, press **CD EDIT/CHECK** while pressing **SHIFT** on the remote control to select side A or B, and press **◄◄** or **►►** repeatedly.



To change the program of each side
Press **CD EDIT/CHECK** while pressing **SHIFT** on the remote control to select side A or B, and press ■ **CLEAR** to clear the program on the selected side. Then program tracks again.

To clear the edit program
Press ■ **CLEAR** twice so that "EDIT" disappears on the display.

NOTE

- Up to 30 tracks can be programmed from any of the inserted discs.
- DVDs cannot be recorded with Programmed Edit recording.

With this unit's built-in, Dolby Pro Logic decoder and surround speaker system (the center and surround speaker units supplied in addition to the left and right front speakers), music sources recorded in Dolby Pro Logic can be played back in full scale home theater sound.
As for music sources recorded in Dolby Digital, this unit plays them by using D/A(Digital/Analogue) converter and Dolby Pro Logic decoder, and outputs the sound from the supplied speakers in the same way as it does for Dolby Pro Logic recorded sources. Dialogs are heard in the front and center sound field, while ambient sounds like cars and crowds are reproduced on all sides of the listener, all in all for an incredibly lifelike audio-visual experience.

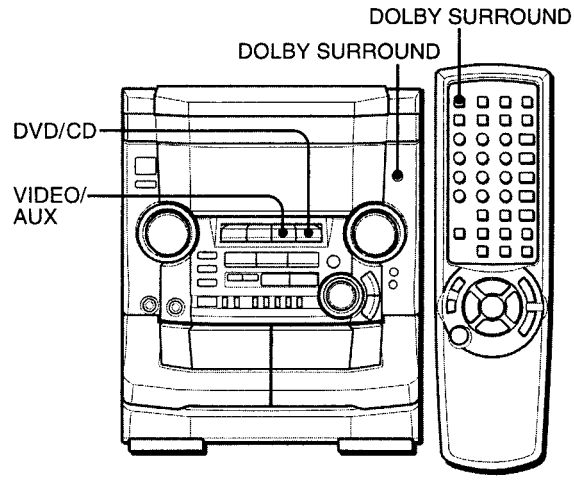
Dolby Pro Logic has four independent channels; left, center, right, and surround. These four channels are encoded into the two tracks of a conventional stereo program source. This unit's Dolby Pro Logic software is marked with the DOLBY SURROUND logo.

Dolby Digital, in contrast to Dolby Pro Logic, is digitized, and has separate left and right surround channels plus an additional low-frequency effects (LFE) channel. Thus it is also referred to as "5.1-channel" Dolby Digital, with the LFE channel counted as "0.1" channel.
Dolby Digital software is marked with the DOLBY DIGITAL logo.

NOTE

- This unit cannot output the DTS Digital Surround system sound from the supplied speakers by itself. To playback in the DTS Digital Surround system, this unit needs to be connected to a DTS decoder unit or an amplifier equipped with a DTS decoder via the **DIGITAL AUDIO OUT (OPTICAL)** jack.
  When connecting to such decoder or a decoder-equipped amplifier, the audio output setting of must be changed appropriately in the DVD setup (see "Audio Output Setting", page 45).
- Dolby Pro Logic sound can only be obtained when playing back software with their respective logos.
- Make sure all the supplied speakers are placed and connected properly (pages 4 and 5).
- Make sure your video equipment and TV are connected properly (page 4,5 and 6).
- Make sure your video equipment can play back the particular medium of your Dolby Digital or Dolby Pro Logic software (LDs or DVDs, for example). Consult the operating instructions for your equipment.

PLAYING DOLBY SURROUND SOUND



Playing on the unit (on the disc player)

1 Press DVD/CD and start playback of the disc.

2 Press DOLBY SURROUND.
"NORMAL" is selected, and the playback sound has the DOLBY SURROUND effect.

Playing with connected video equipment

1 Press VIDEO/AUX and start playback of the video source.
"VIDEO" is displayed.

2 Press DOLBY SURROUND.
"NORMAL" is selected, and the playback sound has the DOLBY SURROUND effect.

To cancel DOLBY SURROUND mode
Press **DOLBY SURROUND** repeatedly until "OFF" is displayed.

ADDITIONAL DOLBY SURROUND MODES

In addition to the NORMAL mode, this unit is also equipped with the PHANTOM and the 3 STEREO modes.

PHANTOM mode: Use this mode when no center speaker is connected. The center channel signals are output through the left and right speakers.

3 STEREO mode: Use this mode when no surround speakers are connected. This mode reproduces rear sounds through the front speakers.

To select PHANTOM or 3 STEREO

Press **DOLBY SURROUND** repeatedly until the desired DOLBY SURROUND mode is displayed. The DOLBY SURROUND mode is displayed cyclically as follows.

NORMAL → PHANTOM → 3 STEREO → OFF (cancel) →

To adjust the balance of connected speaker sound levels

Carry out steps 2 to 4 of "ADJUSTING SPEAKER LEVEL BALANCE"(page 35).

NOTE

- Depending on the sound source and/or listening conditions, a surround effect may not be obtained even when the DOLBY SURROUND is on.
- The full DOLBY SURROUND effect cannot be obtained when using software without DOLBY SURROUND logo and DOLBY DIGITAL logo.
- The DOLBY SURROUND is automatically canceled when:
  - the MIC volume is changed.
  - the BBE is turned on.
  - the headphones are plugged in.
  - the Karaoke function is turned on.

DOLBY SURROUND PLAYBACK MODE INDICATION

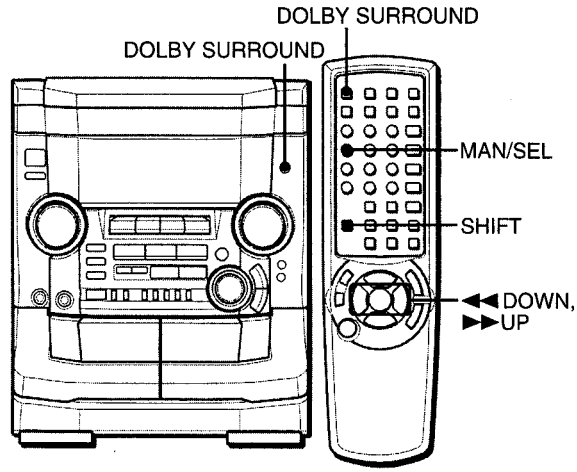
On this unit, "DOLBY PRO LOGIC" lights up in the display to indicate the Dolby Surround playback mode during the playback of Dolby Surround music sources.

"DOLBY PRO LOGIC" lights up :

Indicates that a Dolby Pro Logic or a 2-channel Dolby Digital source is being played back with the Dolby Surround effect (one of the Dolby Surround modes set to "on").

Also lights up when a Dolby Digital source with more than 2 channels is played back in the Downmix PCM mode(page 45) and with the Dolby Surround effect on.

ADJUSTING SPEAKER LEVEL BALANCE



The unit is equipped with a built-in test signal generator called a noise sequencer for easy balance adjustment of all 4 channels. The sequencer outputs a noise signal that "travels" from channel to channel, enabling the simple adjustment of sound level to achieve, at the listening position, the same apparent loudness from each channel.

Use the remote control.

1 Press DOLBY SURROUND to select "NORMAL".
"NORMAL" is displayed.
If "PHANTOM" or "3 STEREO" is displayed, press **DOLBY SURROUND** repeatedly until "NORMAL" is selected.

2 Press MAN/SEL and hold it down while pressing SHIFT for about 4 seconds until "L" flashes.

A noise signal is sent to each channel in turn in the following sequence.

→ **L**: Left speaker → **C**: Center speaker → **R**: Right speaker →
S: Surround speakers ←

3 Press ⏮◀◀ or ▶▶⏭ on the remote control to adjust the sound level of the speakers.
For the left and right front speakers:
Press ⏮◀◀ to shift the balance to the left and ▶▶⏭ to shift to the right.
For the center and the surround speakers:
Press ⏮◀◀ to de-emphasize the channel and ▶▶⏭ to emphasize the channel.

4 Press MAN/SEL again while pressing SHIFT to stop the noise signal.

NOTE

When the sequencer outputs a noise signal, a clicking sound might be heard from the speakers due to the characteristics of the circuit. This is not malfunction.

To adjust the level balance without the noise signal

1 Play the Dolby Surround sound.
2 Press **DOLBY SURROUND** repeatedly to select "NORMAL"
3 Press **MAN/SEL** repeatedly while pressing **SHIFT** on the remote control until "L/R" is displayed.
4 Within 3 seconds, press ⏮◀◀ or ▶▶⏭ on the remote control to adjust the balance of the front speakers.
5 Repeat steps 3 and 4 to adjust the balance of the center and the surround speakers.

About the channels

The left and right front speakers create the stereo effect.
The center speaker helps achieve precise sound positioning over a broad sound field.
The rear-mounted surround speakers enhance the "depth" of the sound field.

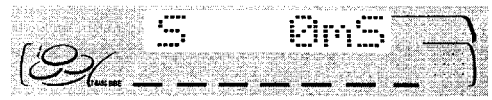
ADJUSTING DELAY TIME

Sounds from the surround speakers are reproduced a split second after the front speakers for the effect of "depth". This delay time can be adjusted.

1 Play the Dolby Surround sound.
See "Playing Dolby Surround sound" (page 33).

2 Press MAN/SEL repeatedly while pressing SHIFT on the remote control to select the delay time to adjust.
"S XmS" : delay time setting for surround speakers

3 Within 3 seconds, press ⏮◀◀ or ▶▶⏭ to adjust the delay time.

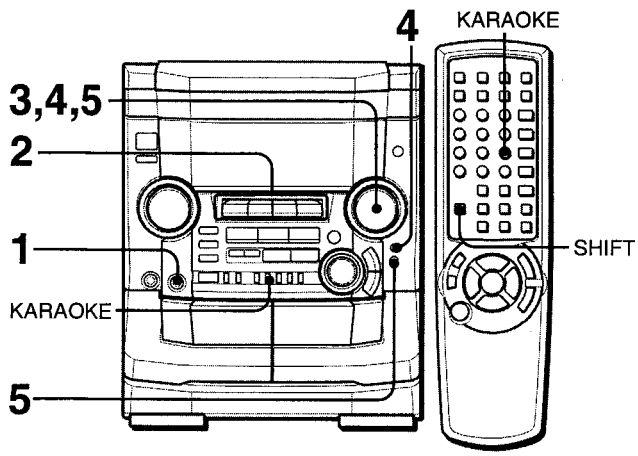


Adjust the delay time to suit your preference.
The default is 20 ms. Adjust between 15 and 30 ms in 5 ms steps.

NOTE

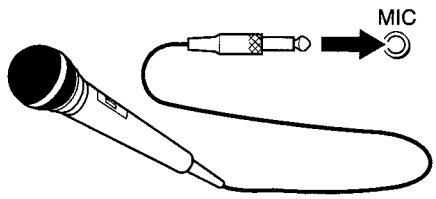
Delay time adjustment is available only for speakers that are activated (i.e., no surround speaker adjustment in the 3 Stereo mode).

MICROPHONE MIXING



A microphone (not supplied) can be connected to this unit, allowing you to sing along to music sources.
Use microphones with a standard plug (ø6.3 mm, 1/4 inch).

1 Connect your microphones to MIC jack.



2 Press one of the function buttons to select the source to be mixed, and play the source.

3 Adjust the volume and tone of the source.

4 Press MIC and turn VOLUME within 4 seconds to adjust the microphone volume.

The microphone volume can be selected from 1 to MAX (7) or OFF (cancel).

5 Press ECHO and turn VOLUME within 4 seconds to adjust the echo level.

The echo level can be selected from 1 to MAX (7) or OFF (cancel).

To change the delay time of echo
Hold down **ECHO** while the echo is on.
"L" (Long) and "M" (Middle) are displayed alternately. At the desired position, release the button.

To record microphone sound mixed with source sound
Follow the procedure for recording from the sound source (see page 29).
SYNC DUB cannot be used for mixing recording.

When not using the microphones
Set the microphone volume and echo level to OFF and remove the microphones from **MIC** jack.

NOTE

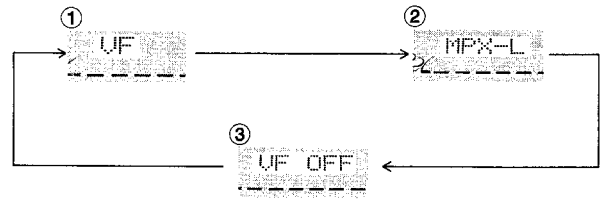
- When the MIC volume is changed, the DOLBY SURROUND is automatically canceled.
- If a microphone is held too near the speakers, a howling sound may be produced. In this case, hold the microphone away from the speakers, or decrease the microphone volume.
- If sound through the microphone is extremely loud, it may be distorted. In this case, decrease the microphone volume.
- When the function is changed, the microphone volume and the echo volume are set to off.

Recommended microphones
The use of unidirectional type microphones is recommended to prevent howling. Contact your local Aiwa dealer for details.

VOCAL FADER/MULTIPLEX FUNCTIONS

This unit can use discs or tapes as Karaoke sources.
Use the Vocal fader function for ordinary discs or tapes.
Use the Multiplex function for multi audio discs or tapes.

Press KARAOKE repeatedly to select the vocal fader or multiplex function.
On the remote control, press **KARAOKE** repeatedly while pressing **SHIFT**.
Each time **KARAOKE** is pressed, one of these functions is selected cyclically.



① Vocal Fader
The singer's voice becomes softer than the accompaniment.

② Multiplex
Only the sound on the left channel is heard from both speakers, and the sound on the right channel is muted.

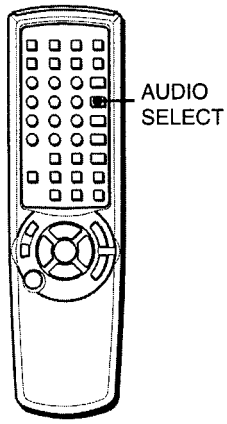
③ Cancel

To change the audible channel in Multiplex function
When Multiplex is selected, "MPX-L" is displayed for 3 seconds and changes to the selected function name. After the selected function name is displayed, hold down **KARAOKE** until "MPX-R" is displayed.
To return to the initial setting, select MPX-L.
When the power is turned off, MPX-L is restored.

NOTE

- The Karaoke functions may not operate correctly with the following kinds of CDs or tapes.
  - Those with monaural sound
  - Those recorded with strong echoes
  - Those with the vocal part recorded on the right or left side of the sound width
- While the Karaoke function is on, the sound is output as monaural.
- When the function is changed, the Karaoke function is canceled.

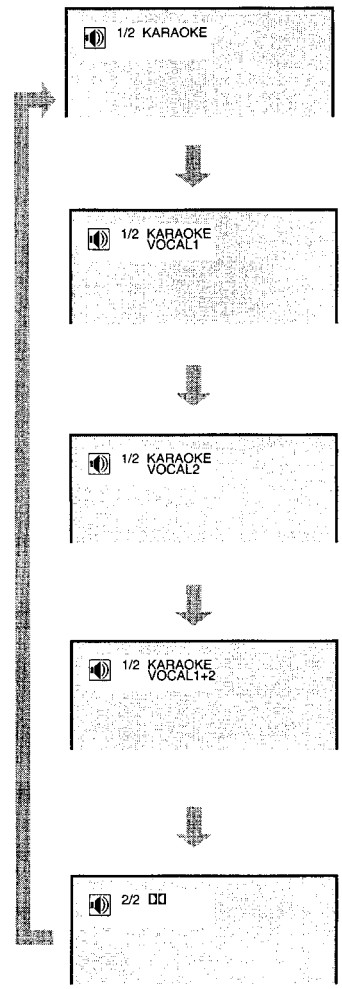
USING DVD KARAOKE DISCS



1 **Follow the steps for "MICROPHONE MIXING" to prepare the sound source and the microphone.**

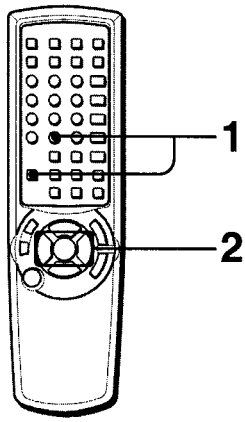
2 **Press AUDIO SELECT repeatedly during playback to select the karaoke audio.**
With each press, the active audio channel changes among those available.

Example: A disc has 2 audio tracks (track 1 and track 2), and track 1 has 2 vocal channels.



The available audio channels differ with the karaoke disc. Refer to the instructions on the disc for details.

SETTING THE SLEEP TIMER

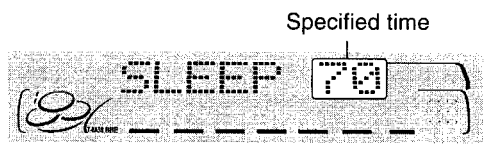


The unit can be turned off automatically at a specified time.

Use the remote control.

1 **Press SLEEP while pressing SHIFT.**

2 **<u>Within 4 seconds</u>, press ◀◀ DOWN or ▶▶ UP to specify the time until the power is turned off.**
The time changes between 5 and 240 minutes in 5-minute steps.
MULTI JOG is also available in place of ◀◀ or ▶▶.

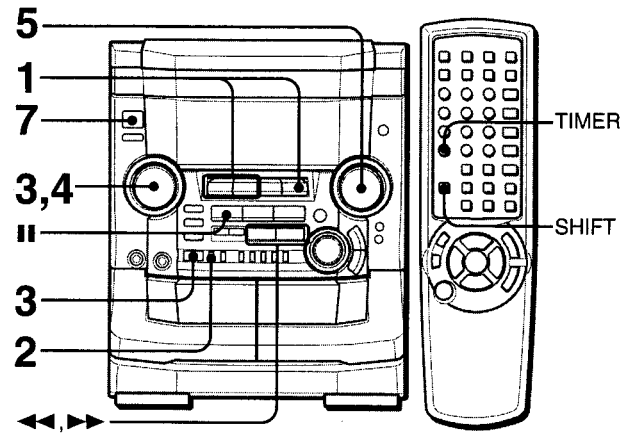


While the timer is in operation, the display indication is dimmer than usual.

To check the time remaining until the power is turned off
Press **SLEEP** once while pressing **SHIFT**. The remaining time is displayed for 4 seconds.

To cancel the sleep timer
Press **SLEEP** twice while pressing **SHIFT** so that "SLEEP oFF" appears on the display.

SETTING THE TIMER



The unit can be turned on at a specified time every day with the built-in timer.

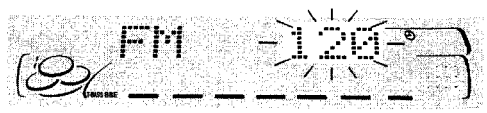
Preparation
Make sure the clock is set correctly.

1 **Press one of the function buttons to select a source.**

2 **Press TIMER repeatedly until ⏲ appears on the display.**
On the remote control, press **TIMER** while pressing **SHIFT**.
Time and audio source name flash alternately.

3 **<u>Within 6 seconds</u>, turn MULTI JOG to designate the timer-on time, then press ENTER or II.**
Turning **MULTI JOG** changes both the hour and the minute. ◀◀ or ▶▶ is also available in place of **MULTI JOG**. Holding these buttons down will vary the time rapidly.

4 **<u>Within 4 seconds</u>, turn MULTI JOG to select the duration for the timer-activated period.**
The duration can be set between 5 and 240 minutes in 5-minute steps.
◀◀ or ▶▶ is also available in place of **MULTI JOG**.



The duration will be automatically set after 4 seconds. It will also be set if **ENTER** or **II** is pressed within 4 seconds after step 4.

5 Adjust the volume.

The source sound will play at the volume level set in this step when the power is turned on by the timer.
If the volume level is set to 21 or higher, however, it will automatically be set to 20 when the power is turned on.

6 Prepare the source.

To listen to a disc, load the disc to be played first on tray 1.
To listen to a tape, insert the tape into deck 1 or 2.
To listen to the radio, select the band and tune in to a station.

7 Press POWER to turn off the power.

When the timer-on time is reached, the unit turns on and begins play with the selected source.

NOTE

You can change the source that was selected in step 1 by pressing one of the function buttons before pressing **ENTER** or **II** in step 3.

To check the timer setting

Press **TIMER**.
The timer-on time, the selected source, and the duration for the timer-activated period will be displayed for 4 seconds.

To change any of the previous setting

Carry out from step 1.
However, if you do not change the timer-on time, in step 3 just press **ENTER** twice and continue from step 4.

To cancel the timer standby mode temporarily

Press **TIMER** repeatedly so that ⏲ disappears.
To restore the timer standby mode, press again to display ⏲.

Using the unit while the timer is set

You can use the unit normally after setting the timer.
Before turning off the power, carry out step 5 and 6.

NOTE

- Timer playback and timer recording will not begin unless the power is turned off.
- Connected equipment cannot be turned on and off by the built-in timer of this unit. Use an external timer.

TIMER RECORDING

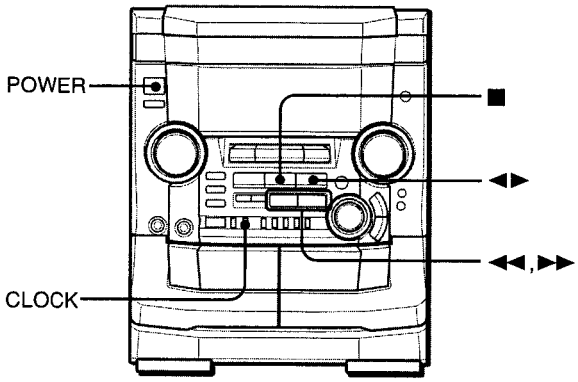
Timer recording is applicable for TUNER and VIDEO/AUX (with an external timer) sources only.

Press either **TUNER BAND** or **VIDEO/AUX** to select a source, then **press TIMER repeatedly until ⏲ flashes on the display.** Within 6 seconds, carry out the steps of "SETTING THE TIMER" from step 3 and insert the tape to be recorded on into deck 2 after step 6.

NOTE

- If the timer recording is done with the economizing mode (page 7) set to "ECO ON" or "ECO AUTO" and the power turns off, the dimmer mode will be set to dimmest and the volume level will be 0 (minimum level) the next time the power is turned on.
- You cannot use the timer function to record from a disc or tape.
- You can check the timer setting by pressing **TIMER** while pressing **SHIFT** on the remote control even while the power is off. In this case, if you press **II** within 4 seconds after pressing **TIMER** while pressing **SHIFT** on the remote control, you can enter the timer setting mode and change the previous setting.

DEMO (Demonstration)



You can enjoy two kinds of DEMO modes on this unit.
One is *demo*, the other one is *game demo.*
In the demo mode, colorful illumination demonstrates in the display.
In the game demo mode, you can play a game.
To switch the two modes to each other, press **POWER** while pressing ◄► when the power is off.
To activate the demo or the game demo, press ◄► when the power is off.
To deactivate the demo or the game demo, press **CLOCK**.
See below about how to play the game demo.

To play the game demo

1 To start the game demo, press ◄► when the power is off
Three numbers on the display start to run.

2 Press ■ once.
The number on the left side stops.

3 Press ■ twice to stop the remaining two numbers.
Scoring:
20 points are given to start the game.
If all the numbers are equal, 50 points are added to the score.
If not equal, one point is subtracted.
If the gained points reach 9999, you win.
If the gained points fall to 0, you lose.

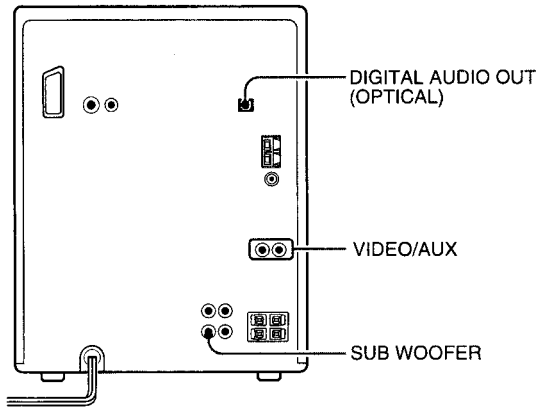
To reset the game demo
Press **CLOCK**, then press ◄►.

To change the probability of equalizing the three numbers
Press ◄◄ or ►► repeatedly to select one of the three probability levels when playing the game demo. The tray number indicator in the display changes between 1 and 3. As the tray number increases from 1 to 3, the higher the probability of equalizing.

NOTE

- While playing the game demo, ■, ◄◄, ►► and ◄► are available only for the game demo. Turn the power on to use these buttons for the functions such as CD playing, etc.
- During the game demo, some indicators unrelated to the actual operation light up on the display.

CONNECTING OPTIONAL EQUIPMENT



Refer to the operating instructions of the connected equipment for details.

- The connecting cords are not supplied. Obtain the necessary connecting cords.
- Consult your local Aiwa dealer for optional equipment.

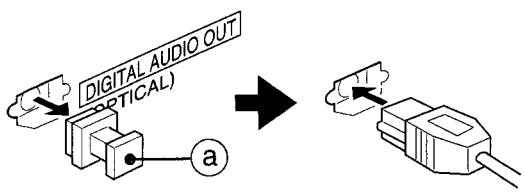
VIDEO/AUX JACKS

This unit can input analog sound signals through these jacks. Use a cable with RCA phono plugs to connect audio equipment (turntables, LD players, MD players, VCRs, TV, etc.).
Connect the red plug to the **VIDEO/AUX R** jack, and the white plug to the **VIDEO/AUX L** jack.

When connecting a turntable
Use an Aiwa turntable equipped with a built-in equalizer amplifier.

DIGITAL AUDIO OUT (OPTICAL) JACK

This unit can output digital sound signals through this jack. Use an optical cable to connect digital audio equipment (DAT deck, MD recorder, etc.).
Remove the dust cap ⓐ from the **DIGITAL AUDIO OUT (OPTICAL)** jack. Then, connect an optical cable plug to the **DIGITAL AUDIO OUT (OPTICAL)** jack.



When the DIGITAL AUDIO OUT (OPTICAL) jack is not being used
Attach the supplied dust cap.

Notes on connecting to external amplifiers
This unit supports playback of discs recorded with the Dolby Digital system and the DTS Digital Surround system.
To playback in the Dolby Digital system, this unit needs to be connected to a Dolby Digital decoder unit or an amplifier equipped with a Dolby Digital decoder via the **DIGITAL AUDIO OUT (OPTICAL)** jack.
To playback in the DTS Digital Surround system, this unit needs to be connected to a DTS decoder unit or an amplifier equipped with a DTS decoder via the **DIGITAL AUDIO OUT (OPTICAL)** jack.

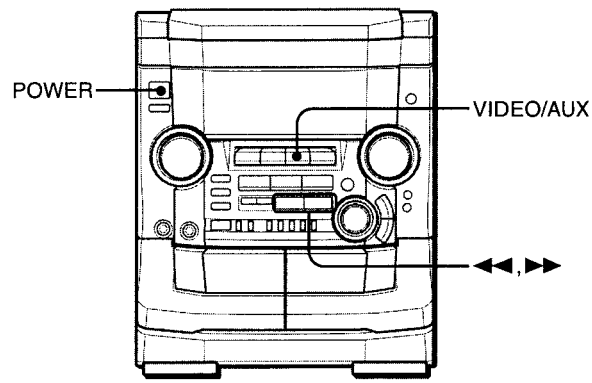
When connecting to such decoder or a decoder-equipped amplifier, the audio output setting of must be changed appropriately in the DVD setup (see "Audio Output Setting", page 45).

CAUTION ON CONNECTING EQUIPMENT TO THE DIGITAL AUDIO OUT (OPTICAL) JACK
If the audio output setting of the DVD setup is not set appropriately to your configuration, merely attempting to play a DVD may cause a high level of noise which could harm your ears and damage the speakers.
Carefully read and follow instructions for "Audio Output Setting", page 45.

SUB WOOFER JACK

Connect an optional powered sub woofer with built-in-amplifier to the jack.

LISTENING TO EXTERNAL SOURCES



To play equipment connected to the VIDEO/AUX jacks proceed as follows.

1 Press VIDEO/AUX.
"VIDEO" appears on the display.

2 Play the connected equipment.

To change a source name in the display
When **VIDEO/AUX** is pressed, "VIDEO" is displayed initially. It can be changed to "VIDEO", "AUX" or "TV".
With the power on, press **POWER** while pressing **VIDEO/AUX**. Repeat the procedure to select one of the names.

To adjust the sound level of the external source
When the sound level of the external source is much higher or much lower than that of other function sources, adjust it as follows.
1 Press **VIDEO/AUX** and play the equipment.
2 Press ◀◀ or ▶▶ so that the sound level becomes the same as that of other function sources.

NOTE

During recording, the sound level can not be adjusted.

Various default settings related to the disc player and the TV monitor can be changed as needed or preferred.

NOTE

The language in which this menu is displayed can be selected from six available languages (see "Menu Languages", page 43). The illustrations show the display in English, the default language.

OVERVIEW OF THE SETUP MENU

There are 7 major menu items that can be adjusted. Their function are as follows:

1 On-screen Menu (page 43)
- Sets the on-screen guide display on or off.
- Selects a background color for the TV screen.
- Selects the language for this setup menu and the on-screen guide messages.

2 Disc Languages (page 44)
Selects the preferred audio soundtrack language, subtitle language and menu screen language for DVD playback.

3 Audio Output Setting (page 45)
Adjusts the type of signal output from the DIGITAL AUDIO OUT (OPTICAL) jack and the SPEAKERS jacks.

4 TV Aspect (page 46)
Sets the aspect ratio of the video signal sent to your connected TV set.

5 Ratings (page 47)
Sets the rating limit of DVDs allowed to playback on this unit when playing discs with restriction level encoding.
With discs that include scenes with excessive violence, for example, this setting can be used either to automatically cut such scenes or to disable playback altogether, depending on the disc.

6 PBC (page 48)
Sets your preferred setting to turn the PBC (PlayBack Control) function for video CDs on or off.

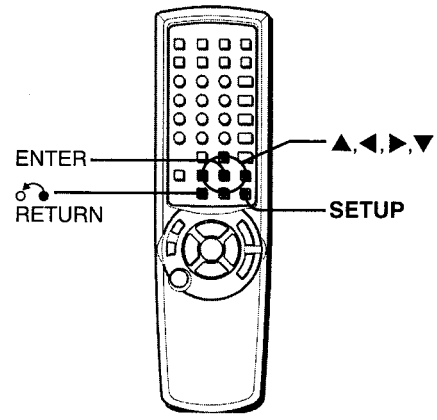
7 Disc Resume (page 48)
Sets whether the disc resume memory is retained after power off, opening of the disc tray, switching of the current disc or switching of the function.

The "Audio Output Setting" and the "TV Aspect" setting need to be set specifically to match your configuration of connected equipment.
- Changing the default "Audio Output Setting" maybe needed *if you are connecting an external decoder or amplifier.*
- The default "TV Aspect" setting has to be changed *if your TV is a wide screen set.*

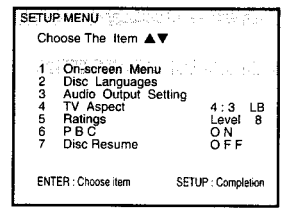
Any other setting can be changed or kept as is, according to your preferences.

BASIC MENU OPERATIONS

Basic operation of the SETUP MENU is described here.
The setup menu can be operated only from the remote control.



1 Press SETUP while DVD/CD is selected and the player is stopped.
The "SETUP MENU" screen is displayed.


SETUP MENU
Choose The Item ▲▼
1 On-screen Menu
2 Disc Languages
3 Audio Output Setting
4 TV Aspect 4 : 3 LB
5 Ratings Level 8
6 P B C O N
7 Disc Resume O F F
ENTER : Choose item
SETUP : Completion

2 Use ▲ ▼ to move the cursor (the yellow-highlighted area) to the setting to be changed.

3 Press ENTER.
The menu screen for the item you selected will be displayed.

4 Use ▲▼ to move the cursor to the desired setting.

5 Press ENTER to enter your selection.
The selected setting will be saved, and the display returns to the main setup screen of step 1.
For some settings, however, the screen will display a more detailed menu. Follow the directions shown on the screen.

6 Press SETUP to exit the setup menu.

To return to the previous screen
Press ↶RETURN.

To exit the setup menu
Press **SETUP.**

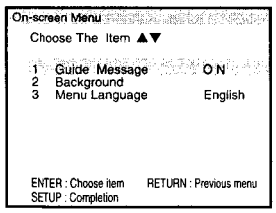
To confirm your setting
1 Follow steps 1 to 4 above to display the setting you want to confirm.
2 Press **SETUP** to exit the setup menu without making changes.

NOTE

- If you pressed ↶RETURN or **SETUP** before pressing **ENTER** to enter your selection, you return to the previous screen or exit the setup menu, respectively, without saving your selection. Any selection you entered by pressing **ENTER** will be saved. If you are uncertain of your present setup, follow "To confirm your setting", above.
- While the setup screen is displayed, you will not be able to load or unload a disc or perform other operations. Press **SETUP** again to exit the setup screen first.

ON-SCREEN MENU

Set or select the on-screen guide display, background color for the TV screen, and the language for this setup menu and the on-screen guides.



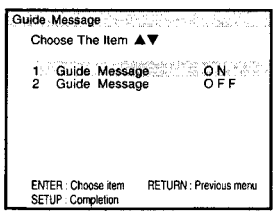
Guide message

Sets whether or not to show the on-screen guide display at the upper right side of the TV screen.
The default setting is "ON".

[1] Select "On-screen Menu" in the "SETUP MENU" and press ENTER.

[2] Select "Guide Message" and press ENTER.

[3] Select the desired setting and press ENTER.


Guide Message
Choose The Item ▲▼
1 Guide Message ON
2 Guide Message OFF
ENTER : Choose item RETURN : Previous menu
SETUP : Completion

[4] Press ↶RETURN to return to the previous screen or press SETUP to exit the setup menu.

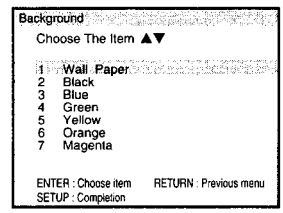
Background

Sets the background color of the TV screen while stopped.
The default setting is "Wallpaper".

[1] Select "On-screen Menu" in the "SETUP MENU" and press ENTER.

[2] Select "Background" and press ENTER.

[3] Select the desired setting and press ENTER.



[4] Press ↶RETURN to return to the previous screen or press SETUP to exit the setup menu.

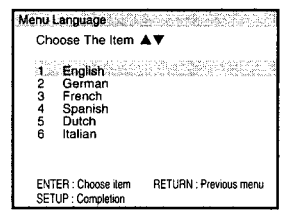
Menu Language

Selects the language in which this setup menu and the on-screen guide messages are displayed.
The default setting is "English".

[1] Select "On-screen Menu" in the "SETUP MENU" and press ENTER.

[2] Select "Menu Language"and press ENTER.

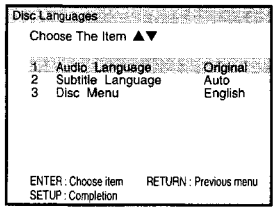
[3] Select the desired language and press ENTER.



[4] Press ↶RETURN to return to the previous screen or press SETUP to exit the setup menu.

DISC LANGUAGES

Selects the preferred audio sound track language, subtitle language and menu screen language for DVD playback.


Disc Languages
Choose The Item ▲▼
1 Audio Language Original
2 Subtitle Language Auto
3 Disc Menu English
ENTER : Choose item RETURN : Previous menu
SETUP : Completion

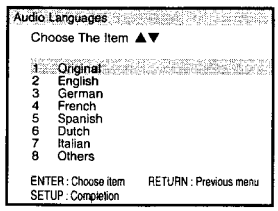
Audio Language

The default setting is "Original".

[1] Select "Disc Languages" in the "SETUP MENU" and press ENTER.

[2] Select "Audio language" and press ENTER.

[3] Select the desired language and press ENTER.

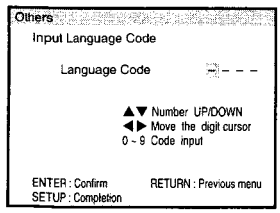


"Original": Plays discs in the language specified as the default on the disc. *Go to step 5.*

"English", "German", "French", "Spanish", "Dutch", "Italian" : Plays discs in the selected language. *Go to step 5.*

"Others": Language code setting screen appears. *Go to step 4.*

[4] *When "Others" is selected in step 3,* enter a four-digit language code by using ▲, ▼ and numbered buttons, and press ENTER.
Refer to the list of language codes on page 51.


Others
Input Language Code
Language Code - - - -
▲▼ Number UP/DOWN
◀▶ Move the digit cursor
0 - 9 Code input
ENTER : Confirm RETURN : Previous menu
SETUP : Completion

To move the cursor, use ◀or ▶.

[5] Press ↩RETURN to return to the previous screen or press SETUP to exit the setup menu.

If your preferred language does not exist on the disc, the disc's default language will be used.
To manually change the audio tracks, see "Changing audio tracks", page 25.

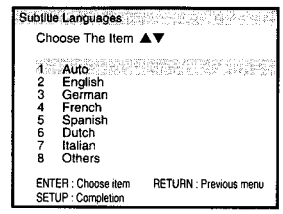
Subtitle Language

The default setting is "Auto".

[1] Select "Disc Languages" in the "SETUP MENU" and press ENTER.

[2] Select "Subtitle Language" and press ENTER.

[3] Select the desired language and press ENTER.



"Auto": Subtitles will automatically be displayed in the same language set for "Audio Language".
- Subtitles will not be displayed when the played back language is the one given priority.
- If the default audio language does not exist on the disc, then subtitles will be displayed in the default audio language as selected in the "Audio Language" setting.

Example:
- English is set as the default audio language selected by the "Audio Language" setting.
- When playing a English audio track, no subtitles will be displayed.
- If there is no English audio track on the disc, English subtitles will be displayed.

"English", "German", "French", "Spanish", "Dutch", "Italian": Shows subtitles in the selected language.

"Others": Language code setting screen appears. The procedure for setting the language code is the same as for "Audio Language" setting. Refer to the step 4 of "Audio Language" setting.

[4] Press ↩RETURN to return to the previous screen or press SETUP to exit the setup menu.

If your preferred language does not exist on the disc, the disc's default language will be used.
To turn subtitles on or off, or to manually change the displayed subtitle language, see "Subtitles", page 25.

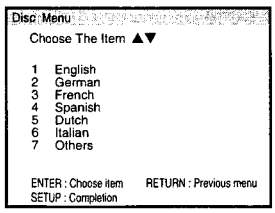
Disc Menu

The default setting is "English".

1 Select "Disc Languages" in the "SETUP MENU" and press ENTER.

2 Select "Disc Menu" and press ENTER.

3 Select the desired language and press ENTER.



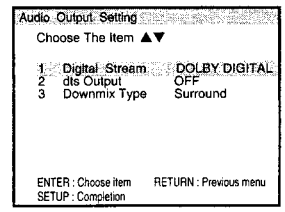
"English", "German", "French", "Spanish", "Dutch", "Italian": Shows the Disc menu in the selected language.
"Others":Language code setting screen appears. The procedure for setting the language code is the same as for "Audio Language" setting. Refer to the step 4 of "Audio Language" setting.

4 Press ↶RETURN to return to the previous screen or press SETUP to exit the setup menu.

If your preferred language does not exist on the disc, the disc's default language will be used.
For the operation of the disc menu, see "Using the software specific menu", page 18.

AUDIO OUTPUT SETTING

Adjusts the type of signal output from the DIGITAL AUDIO OUT (OPTICAL) jack and the speaker jacks.
Changing the default "Audio Output Setting" may be needed *if you are connecting an external decoder or amplifier.*
If so, set up according to the type of connected equipment.



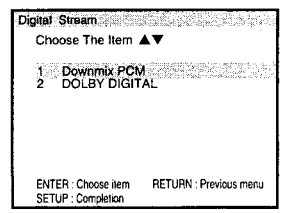
Digital Stream

Sets the digital output to be output from the optical digital audio output connector of DVD player, and adjusts the type of signal output from speaker jacks.
The default setting is "DOLBY DIGITAL".

1 Select "Audio Output Setting" in the "SETUP MENU" and press ENTER.

2 Select "Digital Stream" and press ENTER.

3 Select the setting suited to your configuration and press ENTER.



Downmix PCM
Select this option if the unit is connected via a fiber optical cable to a digital amplifier without a built-in Dolby Digital decoder. Selecting this option, however, downmixes the signal output from the speaker jacks to a conventional two channel (left and right) stereo signal if no surround effect is set on the signal (e.g. Dolby Surround Mode is set to "OFF").

DOLBY DIGITAL
Select this option if the unit is connected to a Dolby Digital decoder, or to an amplifier with a built-in Dolby Digital decoder, with a digital fiber optical cable. Selecting this option does not affect the signal output from the speaker jacks.

4 Press ↶RETURN to return to the previous screen or press SETUP to exit the setup menu.

CAUTION
If the AV amplifier is not equipped with a DOLBY DIGITAL decoder, do not select "DOLBY DIGITAL" in the "Audio Output Setting" when connecting the AV amplifier with an optical connecting cord.
Merely attempting to play a DVD may cause a high level of noise which could be harmful to your ears and damage the speakers. In such a case, be sure to select "Downmix PCM".

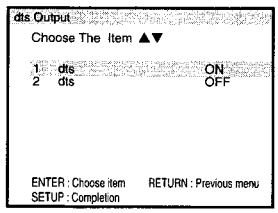
dts Output

Sets the dts output as to whether the connected amplifier contains a DTS decoder or not.
The default setting is "dts OFF".

[1] Select "Audio Output Setting" in the "SETUP MENU" and press ENTER.

[2] Select "dts Output" and press ENTER.

[3] Select the setting suited to your configuration and press ENTER.



"dts ON"
Select this option if the unit is connected to an amplifier with a DTS decoder.

"dts OFF"
Select this option if the unit is connected to an amplifier without a DTS decoder.

[4] Press ↶RETURN to return to the previous screen or press SETUP to exit the setup menu.

CAUTION
If the AV amplifier is not equipped with a DTS decoder, do not select "dts ON" in the "Audio Output Setting" when connecting the AV amplifier with an optical connecting cord.
Merely attempting to play a DVD may cause a high level of noise which could be harmful to your ears and damage the speakers. In such a case, be sure to select "dts OFF ".

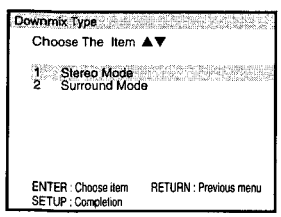
Downmix Type

Sets the downmix type of signals output from DIGITAL AUDIO OUT jack and the speaker jacks. It functions basically when "Downmix PCM" is selected in "Digital Stream" (page 45).
The default setting is "Surround Mode".

[1] Select "Audio Output Setting" in the "SETUP MENU" and press ENTER.

[2] Select "Downmix Type" and press ENTER.

[3] Select the setting and press ENTER.



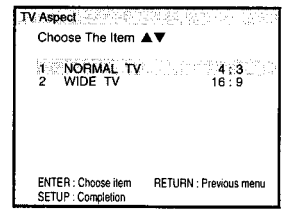
"Stereo Mode"
Downmixes to conventional two channel stereo.
"((( ))) " in the display lights up.

"Surround Mode"
Downmixes to two channel stereo with Surround effect.
This option functions on the signals output from the speaker jacks even if "DOLBY DIGITAL " is selected in "Digital Stream".
Selecting this option with Dolby Surround mode "on" will enhance the Surround effect.
"((( ))) " in the display flashes.

[4] Press ↶RETURN to return to the previous screen or press SETUP to exit the setup menu.

TV ASPECT

There are 2 options for television aspect.



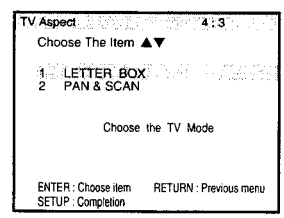
The default setting is "4:3 (NORMAL TV): LETTER BOX".
If your television has a conventional size screen (4:3), refer to "NORMAL TV". Change setting if preferred.
If your television has a wide screen (16:9), you need to change the default setting. Refer to " WIDE TV".

NORMAL TV

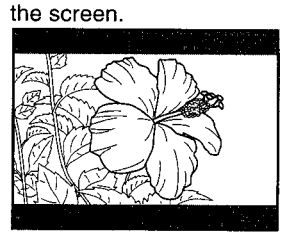
[1] Select "TV Aspect" in the "SETUP MENU" and press ENTER.

[2] Select "NORMAL TV 4:3" and press ENTER.

[3] Select the desired setting and press ENTER.


TV Aspect 4 : 3
Choose The Item ▲▼
1 LETTER BOX
2 PAN & SCAN
Choose the TV Mode
ENTER : Choose item RETURN : Previous menu
SETUP : Completion

"LETTER BOX"
Media recorded in wide (16:9) format will be played in "letterbox" style, with black bands at the top and bottom of the screen.



"PAN & SCAN"
Media recorded in wide (16:9) format will be played at the full screen height, with the left and right portions cut off, for media which contains pan-scan encoding. Other media will be played in "letterbox" style.

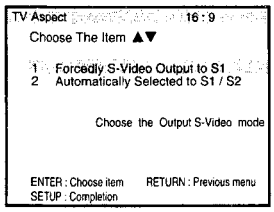
[4] Press SETUP to exit the setup menu.

WIDE TV

1 Select "TV Aspect" in the "SETUP MENU" and press ENTER.

2 Select "WIDE TV 16:9" and press ENTER.

3 Select the setting suited to your configuration and press ENTER.


TV Aspect 16 : 9
Choose The Item ▲▼
1 Forcedly S-Video Output to S1
2 Automatically Selected to S1 / S2
Choose the Output S-Video mode
ENTER : Choose item RETURN : Previous menu
SETUP : Completion

"Forcedly S-Video Output to S1"
Select this option when connecting to a wide TV which does not support S2.

"Automatically Selected to S1/S2"
Select this option when connecting to a wide TV which supports S2. The long-wide ratio is automatically changed according to a playback disc.

4 Press SETUP to exit the setup menu.

NOTE

The display will not change to wide ratio if your TV set is not connected via the S-VIDEO OUT jack.

RATINGS

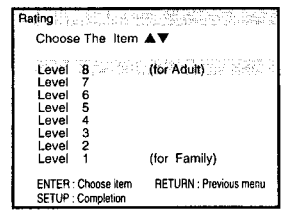
Sets the rating limit allowed to playback on this unit when playing discs with restriction level encoding.

Setting the Rating

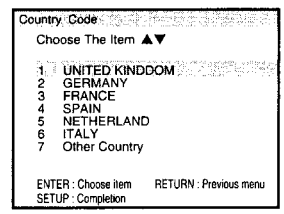
The default setting is "Level 8".

1 Select "Ratings" in the "SETUP MENU" and press ENTER.

2 Select your desired level and press ENTER.
The smaller the number, the higher the level of restriction.
For instance, setting the rating level to 1 will restrict playback of all discs with a rating level from 2 to 8, either by cutting certain scenes or disabling playback altogether, depending on the disc.
Check your disc for details.



3 Select the country code for your country.

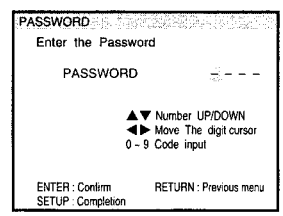


The country code needs to be set correctly, since the rating system differs with the country.
When "Other Country" is selected in the country code, the display changes to accept 4-digit numbers. Input a 4-digit country code shown on page 49 in the same way as the input of the language code (page 44).

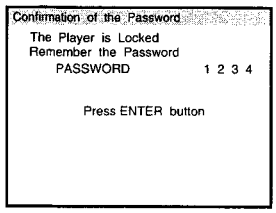
NOTE

The country code is different from the language code stated before.
Example: country code for "United States" is "8583".

4 Press ENTER.
The password entry screen is displayed.


PASSWORD
Enter the Password
PASSWORD - - - -
▲▼ Number UP/DOWN
◀▶ Move The digit cursor
0 - 9 Code input
ENTER : Confirm RETURN : Previous menu
SETUP : Completion

5 Use the numbered buttons and ◀, ▶ to enter a four-digit password, and press ENTER.
Confirm your password.



Do not forget the password you set!

If you forget your password
Reset the unit to initial condition (see "To Reset DVD Setup", page 53) and set all the settings again including the "Ratings" setting.

6 After confirming the password, press ENTER again.
Your entry is saved.

7 Press SETUP to exit the setup menu.

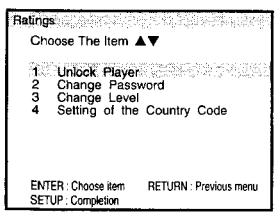
Changing the settings

Once the ratings settings have been set, you first need to enter the password to change them.

1 Select "Ratings" in the "SETUP MENU" and press ENTER.

2 Input your four-digit password and press ENTER.

3 Select the setting to be changed and press ENTER.



"Unlock Player" cancels the rating level, country and password setting to default

4 If you chose "Unlock player", the message "The player is unlocked" appears on the display. Press ENTER.
For other settings, change to your desired setting and press ENTER.

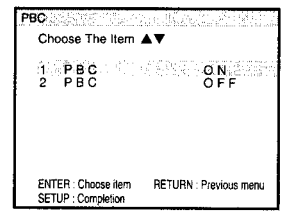
5 Press ↶RETURN to return to the previous screen or press SETUP to exit the setup menu.

PBC

Sets your preferred setting to turn the PBC (PlayBack Control) function for video CDs on or off.
The default setting is "ON".

1 Select "PBC" in the "SETUP MENU" and press ENTER.

2 Select your desired setting, and press ENTER.



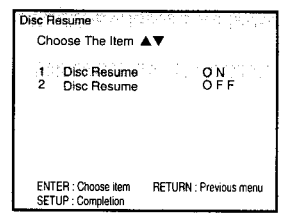
3 Press SETUP to exit the setup menu.

DISC RESUME

Sets whether the disc resume memory is retained after power off, opening of the disc tray, switching of the current disc or switching of the function (ON) or not (OFF).
After these operations, playback starts either from the previous stopped point (ON), or from the beginning of the disc (OFF).
Note that setting Disc Resume to OFF does not turn off the resume playback feature itself. For the resume function, see "Stopping and Pausing", page 17.
The default setting is "OFF".

1 Select "Disc Resume" in the "SETUP MENU" and press ENTER.

2 Select your desired setting, and press ENTER.



3 Press SETUP to exit the setup menu.

When the Disc Resume is ON
When a disc is loaded, the unit checks whether it holds the resume memory data for the disc. If so, "RESUME" is displayed on the screen before the unit enters the stop mode.
In this condition, playback starts from the previous stopped point by pressing ◀▶.

To start play from the beginning temporarily during Disc Resume ON
Press ■ in stop mode and then press ◀▶ to start playback. "RESUME OFF" is displayed in this case.

NOTE

- The unit maintains the resume data of up to 5 DVDs and up to a total of 10 audio CDs and video CDs.
- When the 6th DVD disc or the 11th audio CD or video CD is inserted, the resume data for the oldest disc is overwritten by the disc information of the new disc and deleted, even when Disc Resume is set to OFF.

COUNTRY CODES

Use these numbers to specify the country in the "Ratings" setting.

Code	Country	Code	Country	Code	Country
6570	AFGHANISTAN	6776	CHILE	7176	GREENLAND
6576	ALBANIA	6778	CHINA	7168	GRENADA
6890	ALGERIA	6788	CHRISTMAS ISLAND	7180	GUADELOUPE
6583	AMERICAN SAMOA	6767	COCOS (KEELING) ISLAND	7185	GUAM
6568	ANDORRA	6779	COLOMBIA	7184	GUATEMALA
6579	ANGOLA	7577	COMOROS	7178	GUINEA
6573	ANGUILLA	6771	CONGO	7187	GUNEA-BISSAU
6581	ANTARCTICA	6775	COOK ISLANDS	7189	GUYANA
6571	ANTIGUA AND BARBUDA	6782	COSTA RICA	7284	HAITI
6582	ARGENTINA	6773	COTE D'IVOIRE	7277	HEARD ISLAND AND MCDONALD ISLANDS
6577	ARMENIA	7282	CROATIA	7278	HONDURAS
6587	ARUBA	6785	CUBA	7275	HONG KONG
6585	AUSTRALIA	6789	CYPRUS	7285	HUNGARY
6584	AUSTRIA	6790	CZECH REPUBLIC	7383	ICELAND
6590	AZERBAIJAN	6875	DENMARK	7378	INDIA
6683	BAHAMAS	6874	DJIBOUTI	7368	INDONESIA
6672	BAHRAIN	6877	DOMINICA	7382	IRAN (ISLAMIC REPUBLIC OF)
6668	BANGLADESH	6879	DOMINICAN REPUBLIC	7381	IRAQ
6666	BARBADOS	8480	EAST TIMOR	7369	IRELAND
6689	BELARUS	6967	ECUADOR	7376	ISRAEL
6669	BELGIUM	6971	EGYPT	7384	ITALY
6690	BELIZE	8386	EL SALVADOR	7477	JAMAICA
6674	BENIN	7181	EQUATORIAL GUINEA	7480	JAPAN
6677	BERMUDA	6982	ERITREA	7479	JORDAN
6684	BHUTAN	6969	ESTONIA	7590	KAZAKHSTAN
6679	BOLIVIA	6984	ETHIOPIA	7569	KENYA
6665	BOSNIA AND HERZEGOVINA	7075	FALKLAND ISLANDS (MALVINAS)	7573	KIRIBATI
6687	BOTSWANA	7079	FAROE ISLANDS	7580	KOREA,DEMOCRATIC PEOPLE'S REPUBLIC OF
6686	BOUVET ISLAND	7074	FIJI	7582	KOREA, REPUBLIC OF
6682	BRAZIL	7073	FINLAND	7587	KUWAIT
7379	BRITISH INDIAN OCEAN TERRITORY	7082	FRANCE	7571	KYRGYZSTAN
6678	BRUNEI DARUSSALAM	7088	FRANCE, METROPOLITAN	7665	LAO PEOPLE'S DEMOCRATIC REPUBLIC
6671	BULGARIA	7170	FRENCH GUIANA	7686	LATVIA
6670	BURKINA FASO	8070	FRENCH POLYNESIA	7666	LEBANON
6673	BURUNDI	8470	FRENCH SOUTHERN TERRITORIES	7683	LESOTHO
7572	CAMBODIA	7165	GABON	7682	LIBERIA
6777	CAMEROON	7177	GAMBIA	7689	LIBYAN ARAB JAMAHIRIYA
6765	CANADA	7169	GEORGIA	7673	LIECHTENSTEIN
6786	CAPE VERDE	6869	GERMANY	7684	LITHUANIA
7589	CAYMAN ISLANDS	7172	GHANA	7685	LUXEMBOURG
6770	CENTRAL AFRICAN REPUBLIC	7173	GIBRALTAR	7779	MACAU
8468	CHAD	7182	GREECE	7771	MADAGASCAR

Code	Country
7787	MALAWI
7789	MALAYSIA
7786	MALDIVES
7776	MALI
7784	MALTA
7772	MARSHALL ISLANDS
7781	MARTINIQUE
7782	MAURITANIA
7785	MAURITIUS
8984	MAYOTTE
7788	MEXICO
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7767	MONACO
7778	MONGOLIA
7783	MONTSERRAT
7765	MOROCCO
7790	MOZAMBIQUE
7777	MYANMAR
7865	NAMIBIA
7882	NAURU
7880	NEPAL
7876	NETHERLANDS
6578	NETHERLANDS ANTILLES
7867	NEW CALEDONIA
7890	NEW ZEALAND
7873	NICARAGUA
7869	NIGER
7871	NIGERIA
7885	NIUE
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7780	NORTHERN MARIANA ISLANDS
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8969	YEMEN
8985	YUGOSLAVIA
9082	ZAIRE
9077	ZAMBIA
9087	ZIMBABWE

LANGUAGE CODES

Use these numbers to specify the language in the "Disc Languages" setting.

Code	Language	Code	Language	Code	Language
3737	Afar	4457	Hungarian	5256	Portuguese
3738	Abkhazian	4461	Armenian	5357	Quechua
3742	Afrikaans	4537	Interlingua	5449	Rhaeto-Romance
3749	Amharic	4550	Indonesian	5451	Romanian
3754	Arabic	4555	Icelandic	5457	Russian
3755	Assamese	4556	Italian	5537	Sanskrit
3760	Aymara	4559	Hebrew	5540	Sindhi
3762	Azerbaijani	4637	Japanese	5544	Serbo-Croatian
3837	Bashkir	4645	Yiddish	5545	Singhalese
3841	Byelorussian	4659	Javanese	5547	Slovak
3843	Bulgarian	4737	Georgian	5548	Slovenian
3844	Bihari	4747	Kazakh	5549	Samoan
3850	Bengali; Bangla	4748	Greenlandic	5550	Shona
3851	Tibetan	4749	Cambodian	5551	Somali
3854	Breton	4750	Kannada	5553	Albanian
3937	Catalan	4751	Korean	5554	Serbian
3951	Corsican	4755	Kashmiri	5557	Sundanese
3955	Czech	4757	Kurdish	5558	Swedish
3961	Welsh	4761	Kirghiz	5559	Swahili
4037	Danish	4837	Latin	5637	Tamil
4041	German	4850	Lingala	5641	Telugu
4062	Bhutani	4851	Laothian	5643	Tajik
4148	Greek	4856	Lithuanian	5644	Thai
4150	English	4858	Latvian; Lettish	5645	Tigrinya
4151	Esperanto	4943	Malagasy	5647	Turkmen
4155	Spanish	4945	Maori	5648	Tagalog
4156	Estonian	4947	Macedonian	5651	Tonga
4157	Basque	4948	Malayalam	5654	Turkish
4237	Persian	4950	Mongolian	5656	Tatar
4845	Finnish	4951	Moldavian	5659	Twi
4246	Fiji	4954	Marathi	5747	Ukrainian
4251	Faroese	4955	Malay	5754	Urdu
4254	French	4956	Maltese	5762	Uzbek
4261	Frisian	4961	Burmese	5845	Vietnamese
4337	Irish	5037	Nauru	5851	Volapük
4340	Scots Gaelic	5041	Nepali	5951	Wolof
4348	Galician	5048	Dutch	6044	Xhosa
4350	Guarani	5051	Norwegian	6151	Yoruba
4357	Gujarati	5154	Oriya	6244	Chinese
4437	Hausa	5237	Punjabi	6257	Zulu
4445	Hindi	5248	Polish		
4454	Croatian	5255	Pashto; Pushto		

CARE AND MAINTENANCE

Occasional care and maintenance of the unit and the software are needed to optimize the performance of your unit.

To clean the cabinet

Use a soft and dry cloth.
If the surfaces are extremely dirty, use a soft cloth lightly moistened with mild detergent solution. Do not use strong solvents, such as alcohol, benzine or thinner as these could damage the finish of the unit.

To clean the tape heads

When the tape heads are dirty;
- high frequency sound is not emitted
- the sound is not adequately high
- the sound is off-balance
- the tape cannot be erased
- the tape cannot be recorded on

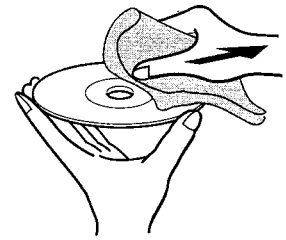
After every 10 hours of use, clean the tape heads with a head cleaning cassette.
Refer to the instructions of the cleaning cassette for details.

To demagnetize the tape heads

The tape heads may become magnetized after long-term use. This may narrow the output range of recorded tapes and increase noise.
After every 20 to 30 hours of use, demagnetize the tape heads with a separately sold demagnetizing cassette.
Refer to the instructions of the demagnetizing cassette for details.

Care of discs

- When a disc becomes dirty, wipe the disc from the center out with a cleaning cloth.



- After playing a disc, store the disc in its case. Do not leave the disc in places that are hot or humid.

Care of tapes

- Store tapes in their cases after use.
- Do not leave tapes near magnets, motors, television sets, or any source of magnetism. This will downgrade the sound quality and cause noise.
- Do not expose tapes to direct sunlight, or leave them in a car parked in direct sunlight.

TROUBLESHOOTING GUIDE

If the unit fails to perform as described in these Operating Instructions, check the following guide.

GENERAL

There is no sound.
- Is the AC cord connected properly?
- Is there a bad connection? (→ page 4,5 and 6)
- There may be a short circuit in the speaker terminals.
  → Disconnect the AC cord, then correct the speaker connections.
- Was an incorrect function button pressed?

Sound is emitted from one speaker only.
- Is the other speaker disconnected?

The output sound is not stereo.
- Is the Karaoke function turned on? (→ page 36)

An erroneous display or a malfunction occurs.
→ Reset the unit as stated below.

The unit blacks out when the power is turned off.
- Is the power economizing mode set to "ECO ON" or "ECO AUTO"? (→ page 7)

The power is not turned on.
→ Disconnect the AC cord, and connect it again in a few seconds.

TUNER SECTION

There is constant, wave-like static.
- Is the antenna connected properly? (→ page 5)
- Is the signal weak?
  → Connect an outdoor antenna.

The reception contains noise interferences or the sound is distorted.
- Is the system picking up external noise or multipath distortion?
  → Change the orientation of the antenna.
  → Move the unit away from other electrical appliances.

CASSETTE DECK SECTION

The tape does not run.
- Is deck 2 in pause mode? (→ page 28)

The sound is off-balance or not adequately high.
- Is the playback head dirty? (→ page 52)

Recording is not possible.
- Is the erasure prevention tab on the tape broken off? (→ page 29)
- Is the recording head dirty? (→ page 52)

Erasure is not possible.
- Is the erasure head dirty? (→ page 52)
- Is a metal tape being used?

High frequency sound is not emitted.
- Is the recording/playback head dirty? (→ page 52)

Cassette holder does not open.
→ Connect the AC cord and press **POWER** to turn the unit on. Then press ▲ **PUSH EJECT** to open the cassette holder.

DISC PLAYER SECTION

The disc does not play.
- Is the disc correctly placed? (→ page 16)
- Is the disc dirty? (→ page 52)
- Is the lens affected by condensation?
  → Wait approximately one hour and try again.
- Are you trying to use a disc that can't be played, such as a CD-ROM? (→ page 14)
- [DVD only] Does the disc exceed the specified rating level? (→ page 47)
- [DVD only] Is the unit connected through a video deck, through a selector switch, or to a TV set with a built-in video deck?
  → The picture may be bad when used with some television sets or projectors, due to the DVD copy protection scheme. The picture quality may also suffer if the DVD player is connected through a selector switch with other video equipment. Try turning off the power to the other video equipment.
  → The picture quality may be somewhat poor when paused, during Frame Advance, fast forward or fast reverse. This is normal.

The DVD does not play according to your preferences.
- Check your set up. (→ page 42)
- Many DVD features, such as the menu, subtitles, multi-audio, multi-angle, rating functions, are dependent on the DVD software itself. Check the instructions for your disc.

To reset the unit

If an unusual condition occurs in the display window or the cassette decks, reset the unit as follows.

1 Press **POWER** to turn off the power.
2 Press **POWER** to turn the power back on while pressing ■**CLEAR**. Everything stored in memory after purchase is canceled.

If the power cannot be turned off in step 1 because of a malfunction, reset by disconnecting the AC cord, and connect it again. Then carry out step 2.

To reset DVD setup

If you foget your password for the DVD rating-level setting, if trouble concerning DVDs (for example, DOLBY sound is not outputted) occurs, or if you want to reset the DVD setup setting to default for any other reason, reset as follows.

1 Press **DVD/CD**.
2 Press ■ to stop playback and make sure that all discs are in stop mode.
3 Press ■**CLEAR** while pressing **DVD/CD** until "CLEAR" is displayed on the unit's display.
4 Press **POWER** to turn off the power.
5 Press **POWER** again to turn the power back on.

SPECIFICATIONS

Main unit CX-NDV525

FM tuner section

Tuning range	87.5 MHz to 108 MHz
Usable sensivity (IHF)	16.8 dBf
Antenna terminals	75 ohms (unbalanced)

MW tuner section

Tuning range	531 kHz to 1602 kHz (9 kHz step) 530 kHz to 1710 kHz (10 kHz step)
Usable sensitivity	350 µV/m
Antenna	Loop antenna

LW tuner section

Tuning range	144 kHz to 290 kHz
Usable sensitivity	1400 µV/m
Antenna	Loop antenna

Amplifier section

Power output	**Front** Rated: 80 W + 80 W (6 ohms, T.H.D. 1 %, 1 kHz/DIN 45500) Reference: 100 W + 100 W (6 ohms, T.H.D. 10 %, 1 kHz/DIN 45324) **Rear (Surround)** Rated: 20 W + 20 W (8 ohms, T.H.D. 1 %, 1 kHz/DIN 45500) Reference: 25 W + 25 W (8 ohms, T.H.D. 10 %, 1 kHz/DIN 45324) **Centre** Rated: 20 W (8 ohms, T.H.D. 1 %, 1 kHz/DIN 45500) Reference: 25 W (8 ohms, T.H.D. 10 %, 1 kHz/DIN 45324)
Total harmonic distortion	0.1 % (40 W, 1 kHz, 6 ohms, DIN AUDIO/Front)
Inputs	VIDEO/AUX: 300 mV (adjustable) MIC: 1.0 mV (10 K ohms)
Outputs	SPEAKERS: accept speakers of 6 ohms or more SURROUND SPEAKERS: accept speakers of 8 ohms to 16 ohms CENTER SPEAKER: accept speakers of 8 ohms or more SUB WOOFER: 1.1 V DIGITAL AUDIO OUT (OPTICAL) PHONES (stereo jack): accepts headphones of 32 ohms or more

Cassette deck section

Track format	4 tracks, 2 channels stereo
Frequency response	50 Hz – 15000 Hz
Recording system	AC bias
Heads	Deck 1: Playback head × 1 Deck 2: Recording/playback head × 1, erase head × 1

Disc player section

Laser	Semiconductor laser DVD video discs: λ = 650mm Compact discs: λ = 780mm
D/A converter	1 bit dual
Signal-to-noise ratio	85 dB (1 kHz, 0 dB)
Harmonic distortion	0.05% (1 kHz, 0 dB)
Signal format	PAL
Supported discs	DVD video discs 12 cm (single-sided single-layer, single-sided double-layer, double-sided-double layer) 8 cm (single-sided single-layer, single-sided double-layer, double-sided-double layer) Compact discs (CD-DA, CD-R, CD-RW, video CD) 12 cm and 8 cm discs
S-VIDEO OUT	Y output: 1 Vp-p (75 ohms, unbalanced) C output: 0.286 Vp-p
VIDEO OUT	Video composite output 1 Vp-p (75 ohms, unbalanced) One RCA jack
OUT (TV)	Video composite output 1Vp-p(75 ohms, unbalanced)
Operating conditions	5°C to 35°C (41°F to 95°F)

General

Power requirements	230 V AC, 50 Hz
Power consumption	220 W
Power consumption in standby mode	If the power-economizing mode is ECO OFF: 40 W If the power-economizing mode is ECO ON or ECO AUTO: 0.9 W
Dimensions (W × H × D)	260 × 326 × 345 mm
Weight	11.9 kg

Speaker system SX-NDV524

Speaker system	2 way, bass reflex (magnetic shielded type)
Speaker units	Woofer: 160 mm cone type Tweeter: 60 mm cone type
Impedance	6 ohms
Sensitivity	87 dB/W/m
Dimensions (W × H × D)	240 × 324 × 245 mm
Weight	4.4 kg

Specifications and external appearance are subject to change without notice.

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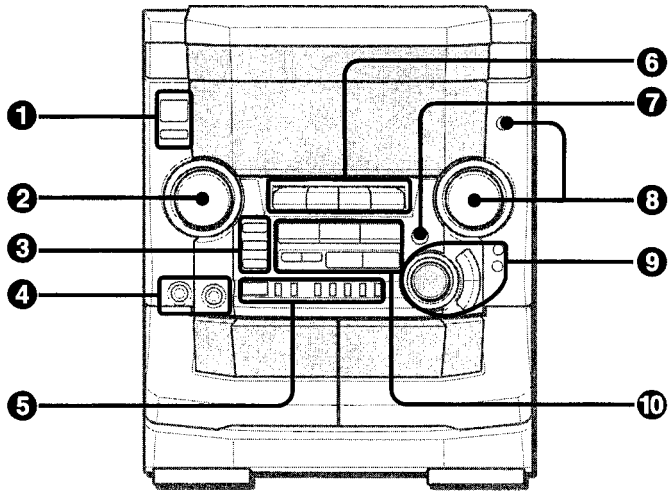

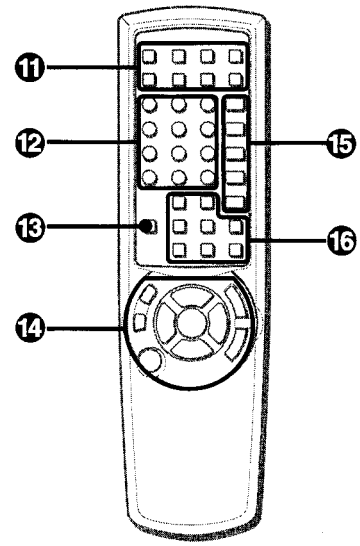

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